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DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l25 and vaccine$	2	L26
USPT,JPAB,EPAB,DWPI	5872005.pn.	2	L25
USPT,JPAB,EPAB,DWPI	adeno-associated$ near5 vaccine$1	12	L24
USPT,JPAB,EPAB,DWPI	adeno$ near5 vaccine$1	259	L23
USPT,JPAB,EPAB,DWPI	l21 and adeno$	13	L22
USPT,JPAB,EPAB,DWPI	l20 and vector$	54	L21
USPT,JPAB,EPAB,DWPI	l19 and vaccine$1	77	L20
USPT,JPAB,EPAB,DWPI	papilloma$ near10 "l2"	111	L19
USPT,JPAB,EPAB,DWPI	l17 same papilloma$	27	L18
USPT,JPAB,EPAB,DWPI	fusion adj1 (peptide$1 or polypeptide$1)	2184	L17
USPT,JPAB,EPAB,DWPI	((adeno-associated adj3 vector) near20 vaccine$)	11	L16
USPT,JPAB,EPAB,DWPI	adeno-associated near10 vaccine$	18	L15
USPT,JPAB,EPAB,DWPI	adeno-associated near5 papilloma$	59	L14
USPT,JPAB,EPAB,DWPI	adeno-associated near10 papilloma$	126	L13
USPT,JPAB,EPAB,DWPI	adeno-associated near15 papilloma$	133	L12
USPT,JPAB,EPAB,DWPI	adeno-associated same papilloma$	165	L11
USPT,JPAB,EPAB,DWPI	adeno-associated and papilloma$	401	L10
USPT,JPAB,EPAB,DWPI	aav and l1	0	L9
USPT,JPAB,EPAB,DWPI	l1 and ("l1" or "l2")	95	L8
USPT,JPAB,EPAB,DWPI	l6 and vaccine	22	L7
USPT,JPAB,EPAB,DWPI	l5 and papilloma$	35	L6
USPT,JPAB,EPAB,DWPI	gissmann-l$.in.	39	L5
USPT,JPAB,EPAB,DWPI	gissman-l$.in.	0	L4
USPT,JPAB,EPAB,DWPI	l1 same orf	2	L3
USPT,JPAB,EPAB,DWPI	l1 near10 orf	0	L2
USPT,JPAB,EPAB,DWPI	papilloma$ near10 vaccine	160	L1

L11 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AN 2000:359342 CAPLUS
DN 133:99254
TI Preclinical study on gene therapy of cervical carcinoma using adeno-associated virus vectors
AU Funke, David; Grimm, Dirk; Denger, Stefanie; Kreuzer, Jorg; Delius, Hajo; Komitowski, Dymitr; **Kleinschmidt, Jurgen A.**
CS Deutsches Krebsforschungszentrum, Forschungsschwerpunkt Angewandte Tumorvirologie, Heidelberg, D-69120, Germany
SO Cancer Gene Ther. (2000), 7(5), 766-777
CODEN: CGTHEG; ISSN: 0929-1903
PB Nature America Inc.
DT Journal
LA English
RE.CNT 62
RE
(2) Alvarez-Salas, L; Proc Natl Acad Sci USA 1998, V95, P1189 CAPLUS
(3) Bottazzi, B; J Immunol 1992, V148, P1280 CAPLUS
(4) Chatterjee, S; Methods 1993, V5, P51 CAPLUS
(5) Chomczynski, P; Anal Biochem 1987, V162, P156 CAPLUS
(6) Conrad, C; Gene Ther 1996, V3, P658 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 7 MEDLINE DUPLICATE 3
AN 93378357 MEDLINE
DN 93378357
TI Immune response to genital **papillomavirus** infections in women. Prospects for the development of a **vaccine** against cervical cancer.
AU Gissmann L; **Jochmus I**; Nindl I; Muller M
CS Forschungsschwerpunkt Angewandte Tumorvirologie Deutsches Krebsforschungszentrum, Heidelberg, Germany.
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1993 Aug 12) 690 80-5. Ref: 9
Journal code: 5NM. ISSN: 0077-8923.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals; Cancer Journals
EM 199312

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ENTRY SESSION
FULL ESTIMATED COST 0.15 0.15

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Enter HELP CONTENT for details.

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COMPLETED. NOTICE WILL BE GIVEN ONCE THE RELOAD IS COMPLETED AND
RELOAD DETAILS WILL BE POSTED IN HELP RELOAD.

s papilloma? and vaccine# ab,bi

21139 PAPILLOMA?
88249 VACCINE# BI
5453647 AB FA
36133 VACCINE# AB
(VACCINE# BI (L) AB FA)
88249 VACCINE# BI
L1 413 PAPILLOMA? AND VACCINE# AB,BI

s adeno-associated ab,bi

1900 ADENO BI
721297 ASSOCIATED BI
5453647 AB FA
830 ADENO-ASSOCIATED AB
((ADENO(W)ASSOCIATED) BI (L) AB FA)
1900 ADENO BI
721297 ASSOCIATED BI
967 ADENO-ASSOCIATED BI
((ADENO(W)ASSOCIATED) BI)
L2 967 ADENO-ASSOCIATED AB,BI

s l2 and vaccine# ab,bi

88249 VACCINE# BI
5453647 AB FA
36133 VACCINE# AB
(VACCINE# BI (L) AB FA)
88249 VACCINE# BI
L3 15 L2 AND VACCINE# AB,BI

s l1 and l3

L4 1 L1 AND L3

d bib ab

L4 ANSWER 1 OF 1 MEDLINE
AN 2000148983 MEDLINE
DN 20148983
TI Recombinant ***adeno*** - ***associated*** virus expressing human
papillomavirus type 16 E7 peptide DNA fused with heat shock
protein DNA as a potential ***vaccine*** for cervical cancer.
AU Liu D W; Tsao Y P; Kung J T; Ding Y A; Sytwu H K; Xiao X; Chen S L
CS Department of Microbiology and Immunology, Taipei, Taiwan, Republic of
China.
SO JOURNAL OF VIROLOGY, (2000 Mar) 74 (6) 2888-94.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 200006
EW 20000602
AB In this study, we explore a potential ***vaccine*** for human
papillomavirus (HPV)-induced tumors, using heat shock protein as
an adjuvant, a peptide ***vaccine*** for safety, and ***adeno*** -
associated virus (AAV) as a gene delivery vector. The tumor
vaccine was devised by constructing a chimeric gene which
contained HPV type 16 E7 cytotoxic T-lymphocyte (CTL) epitope DNA (M. C.
Feltkamp, H. L. Smits, M. P. Vierboom, R. P. Minnaar, B. M. de Jongh, J.
W. Drijfhout, J. ter Schegget, C. J. Melief, and W. M. Kast, Eur. J.
Immunol. 23:2242-2249, 1993) fused with the heat shock protein gene as a
tumor ***vaccine*** delivered via AAV. Our results demonstrate that
this ***vaccine*** can eliminate tumor cells in syngeneic animals and
induce CD4- and CD8-dependent CTL activity in vitro. Moreover, studies
with knockout mice with distinct T-cell deficiencies confirm that
CTL-induced tumor protection is CD4 and CD8 dependent. Taken together, the
evidence indicates that this chimeric gene delivered by AAV has potential
as a cervical cancer ***vaccine***.

d l3 1- bib ab

YOU HAVE REQUESTED DATA FROM 15 ANSWERS -
CONTINUE? Y/(N):y

L3 ANSWER 1 OF 15 MEDLINE
AN 2000156759 MEDLINE
DN 20156759
TI An oral ***vaccine*** against NMDAR1 with efficacy in experimental
stroke and epilepsy [see comments].
CM Comment in: Science 2000 Feb 25;287(5457):1379, 1381
AU During M J; Symes C W; Lawlor P A; Lin J; Dunning J; Fitzsimons H L;
Poulsen D; Leone P; Xu R; Dicker B L; Lipski J; Young D
CS Department of Molecular Medicine and Department of Physiology, University
of Auckland School of Medicine, Auckland, New Zealand.
matthew.during@mail.tju.edu
SO SCIENCE, (2000 Feb 25) 287 (5457) 1453-60.
Journal code: UJ7. ISSN: 0036-8075.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 200005
EW 20000503
AB The brain is generally considered immunoprivileged, although increasing
examples of immunological responses to brain antigens, neuronal expression
of major histocompatibility class I genes, and neurological autoimmunity
have been recognized. An ***adeno*** - ***associated*** virus (AAV)
vaccine generated autoantibodies that targeted a specific brain
protein, the NR1 subunit of the N-methyl-D-aspartate (NMDA) receptor.
After peroral administration of the AAV ***vaccine*** , transgene
expression persisted for at least 5 months and was associated with a

robust humoral response in the absence of a significant cell-mediated response. The single dose ***vaccine*** was associated with strong anti-epileptic and neuroprotective activity in rats for both a kainate-induced seizure model and also a middle cerebral artery occlusion stroke model at 1 to 5 months following vaccination. Thus, a vaccination strategy targeting brain proteins is feasible and may have therapeutic potential for neurological disorders.

L3 ANSWER 2 OF 15 MEDLINE
AN 2000148983 MEDLINE
DN [illegible]
TI Recombinant ***adeno*** - ***associated*** virus expressing human papillomavirus type 16 E7 peptide DNA fused with heat shock protein DNA as a potential ***vaccine*** for cervical cancer.
AU Liu D W; Tsao Y P; Kung J T; Ding Y A; Sytwu H K; Xiao X; Chen S L
CS Department of Microbiology and Immunology, Taipei, Taiwan, Republic of China.
SO JOURNAL OF VIROLOGY, (2000 Mar) 74 (6) 2888-94.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 200006
EW 20000602
AB In this study, we explore a potential ***vaccine*** for human papillomavirus (HPV)-induced tumors, using heat shock protein as an adjuvant, a peptide ***vaccine*** for safety, and ***adeno*** - ***associated*** virus (AAV) as a gene delivery vector. The tumor ***vaccine*** was devised by constructing a chimeric gene which contained HPV type 16 E7 cytotoxic T-lymphocyte (CTL) epitope DNA (M. C. Feltkamp, H. L. Smits, M. P. Vierboom, R. P. Minnaar, B. M. de Jongh, J. W. Drijfhout, J. ter Schegget, C. J. Melief, and W. M. Kast, Eur. J. Immunol. 23:2242-2249, 1993) fused with the heat shock protein gene as a tumor ***vaccine*** delivered via AAV. Our results demonstrate that this ***vaccine*** can eliminate tumor cells in syngeneic animals and induce CD4- and CD8-dependent CTL activity in vitro. Moreover, studies with knockout mice with distinct T-cell deficiencies confirm that CTL-induced tumor protection is CD4 and CD8 dependent. Taken together, the evidence indicates that this chimeric gene delivered by AAV has potential as a cervical cancer ***vaccine***.

L3 ANSWER 3 OF 15 MEDLINE
AN 1999034093 MEDLINE
DN 99034093
TI Gene modification of primary tumor cells for active immunotherapy of human breast and ovarian cancer.
AU Philip R; Clary B; Brunette E; Lebo R; [illegible] Marugg R; [illegible] Sench M; Yau J; Lebkowski J; Lyerly H K; Philip M
CS Applied Immune Sciences, Inc., Santa Clara, California 95054-1114, USA.
SO CLINICAL CANCER RESEARCH, (1996 Jan) 2 (1) 59-68.
Journal code: C2H. ISSN: 1078-0432.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199904
EW 19990402
AB We have previously shown that cationic liposomes facilitate ***adeno*** - ***associated*** virus (AAV) plasmid transfections of primary and cultured cell types. To test the clinical feasibility of using genetically modified tumor ***vaccines*** for the treatment of breast and ovarian cancers, we have constructed an expression plasmid pMP6IL2 and investigated the use of liposome-mediated gene delivery into primary, uncultured human breast and ovarian tumor cells to produce interleukin 2 (IL-2)-secreting tumor cells. We have demonstrated significant levels of IL-2 expression in tumor cell lines and primary breast and ovarian tumor cells using this AAV-based expression plasmid complexed to cationic liposomes. Transfections with the non-AAV plasmid containing the identical expression cassette as the AAV plasmid induced IL-2 expression in the tumor cell line but failed to produce IL-2 in primary tumor cells. Significant levels of IL-2 were induced with the AAV plasmid regardless of liposome compositions used for transfection. The transfected breast cell line and primary tumor cells were able to express the transgene product for up to 28 days after lethal radiation. The transfection efficiency was comparable for both the tumor cell line and primary tumor cells and ranged from 20 to 50% for both cell types as assessed by intracellular IL-2 staining. Although the primary tumor cell preparations consist of mixed population of cells, at least 40% of the tumor cells expressed the transgene as assessed by immunostaining for IL-2. The ability to efficiently express transgenes in freshly isolated, nondividing tumor cells may potentiate active immunotherapy strategies for gene-based cancer treatment.

L3 ANSWER 4 OF 15 MEDLINE
AN 1998299454 MEDLINE
DN 98299454
TI The use of recombinant ***adeno*** - ***associated*** viral vectors for the transduction of epithelial tumor cells.
AU Hoerer M; Bogedain C; Scheer U; Heberger C; Stevrer S; Burger A; Maass G
CS MediGene AG, Munchen-Martinsried, Germany.
SO INTERNATIONAL JOURNAL OF IMMUNOPHARMACOLOGY, (1997 Sep-Oct) 19 (9-10) 473-9.
Journal code: GRI. ISSN: 0192-0561.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199811
EW 19981103
AB Using high titer recombinant ***adeno*** - ***associated*** viral vectors (rAAV), we have investigated the feasibility of cancer ***vaccines*** from tumor explants. In a first set of experiments, rAAV vectors expressing firefly luciferase reporter genes were used to transduce different human tumor cell lines. At day three post transduction, all of the human tumor cell lines tested showed high levels of luciferase expression. To further evaluate rAAV-mediated gene transfer efficiency into primary tumor cells, we transduced freshly isolated tumor cells from malignant melanoma and ovarian carcinoma patients. As a remarkable result, reporter gene expression in primary tumor cells was significantly higher than in the tested established tumor cell lines. These data could also be reproduced with a rAAV lacZ vector, since the portion of successfully transduced primary tumor was higher than 90%. Taken together, our data demonstrate that rAAV-mediated gene transfer is a very efficient method for the transduction of freshly isolated human tumor

cells and may allow the generation of potent autologous cancer
vaccines

L3 ANSWER 5 OF 15 MEDLINE
AN 1998206432 MEDLINE
DN 98206432
TI Recombinant ***adeno*** - ***associated*** virus for the generation of autologous, gene-modified tumor ***vaccines***: evidence for a high transduction efficiency into primary epithelial cancer cells
AU Maass G; Bogedain C; Scheer U; Michl D; Horer M; Braun-Falco M; Volkenandt M; Schadendorf D; Wendtner C M; Winnacker E L; Kotin R M; Hallek M
CS MediGene AG, Martinsried/Munich, Germany.
SO HUMAN GENE THERAPY, (1998 May 1) 9 (7) 1049-59.
Journal code: A12. ISSN: 1043-0342.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199810
EW 19981002
AB To explore the potential of recombinant vectors based on recombinant ***adeno*** - ***associated*** virus (rAAV) for cancer vaccination, we investigated the transduction efficiency of rAAV into cancer cells ex vivo. Infection of human epithelial cancer cell lines with rAAV carrying reporter genes encoding beta-galactosidase (rAAV-LacZ) or luciferase (rAAV-Luc) resulted in high levels of reporter gene expression (>90% positive cells). In marked contrast, rAAV poorly transduced all murine tumor cell lines, as well as human hematopoietic cell lines. Either irradiation or adenovirus infection of tumor cells prior to rAAV infection induced a 10- to 100-fold increase of reporter gene expression. To determine the transduction efficiency of rAAV into primary cancer cells, freshly isolated, irradiated tumor cells from malignant melanoma and ovarian carcinoma patients were infected with rAAV-Luc, resulting in up to 6.9-fold higher levels of gene expression than in a HeLa tumor cell line. Time course experiments with freshly isolated tumor cells infected with rAAV-Luc showed maximal levels of luciferase expression between days 3 and 9 posttransduction. Simultaneous infection of primary tumor cells with up to three rAAV vectors containing genes encoding the immunostimulatory proteins B7-2 (CD86), p35 subunit of IL-12, and p40 subunit of IL-12 resulted in high expression of B7-2 in more than 90% of the tumor cells and in the secretion of high levels of IL-12. Taken together, our results demonstrate that rAAV efficiently transduces freshly isolated human, epithelial tumor cells and might therefore be a potent tool to produce improved, gene-modified cancer ***vaccines***.

L3 ANSWER 6 OF 15 MEDLINE
AN 97456573 MEDLINE
DN 97456573
TI Genetic immunization with ***adeno*** - ***associated*** virus vectors expressing herpes simplex virus type 2 glycoproteins B and D.
AU Manning W C; Paliard X; Zhou S; Pat Bland M; Lee A Y; Hong K; Walker C M; Escobedo J A; Dwarki V
CS Chiron Corporation, Emeryville, California 94608, USA. william_manning@cc.chiron.com
SO JOURNAL OF VIROLOGY, (1997 Oct) 71 (10) 7960-2.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199712
EW 19971204
AB Intramuscular injection of mice with an ***adeno*** - ***associated*** virus (AAV) vector expressing herpes simplex virus type 2 glycoprotein B led to the generation of both gB-specific major histocompatibility complex class I-restricted cytotoxic T lymphocytes and anti-gB antibody. AAV-mediated immunization was more potent than plasmid DNA or protein in generating antibody responses.

L3 ANSWER 7 OF 15 MEDLINE
AN 97333610 MEDLINE
DN 97333610
TI Construction and biological characterization of an interleukin-12 fusion protein (Flexi-12): delivery to acute myeloid leukemic blasts using ***adeno*** - ***associated*** virus.
AU Anderson R; Macdonald I; Corbett T; Hacking G; Lowdell M W; Prentice H G
CS Department of Haematology, Royal Free Hospital School of Medicine, Hampstead, London, UK.
SO HUMAN GENE THERAPY, (1997 Jun 10) 8 (9) 1125-35.
Journal code: A12. ISSN: 1043-0342.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199710
EW 19971005
AB Interleukin 12 (IL-12) is a cytokine that exhibits pleiotropic effects on lymphocytes and natural killer cells and has been shown to have promise for the immunotherapy of cancer. The combination of the immune costimulatory molecule B7.1 and IL-12 has been shown to be synergistic for T cell activation. By transfecting tumor cells with both IL-12 and B7.1 cDNAs, it may be possible to use these modified targets as ***vaccines***. A major obstacle in designing a vector to deliver these genes results from the structure of IL-12. Functional IL-12 is a heterodimer composed of two distinct subunits that are encoded by separate genes on different chromosomes. Production of functional IL-12 requires the coordinated expression of both genes. This presents several problems in vectors, particularly those in which additional genes, either a costimulatory gene or a selectable marker, are inserted. Therefore, we have constructed a single cDNA that encodes a single-chain protein, called Flexi-12, which retains all of the biological characteristics of recombinant IL-12 (rIL-12). The monomeric polypeptide Flexi-12 is able to induce the proliferation of phytohemagglutinin (PHA) blasts, induce PHA blasts to secrete interferon gamma (IFN-gamma) and additionally, by preincubation, enhance the killing of K562 targets by PBLs. These phenomena are in a dose-dependent manner comparable to that seen with rIL-12. We have also shown that tyrosine phosphorylation of the STAT 4 transcription factor, which has been shown to be unique to the IL-12 signaling pathway, occurs with Flexi-12 at levels similar to those seen with rIL-12. We have packaged Flexi-12 into a recombinant ***adeno*** - ***associated*** virus (AAV) and used this vector to infect acute myeloid leukemic (AML) blasts. Infected AML blasts produced between 2 and 6 ng of IL-12/10(6) cells per ml per 48 hr. These studies also confirm that AAV is an efficient delivery vehicle for cytokines to leukemic cells.

Direct analysis [illegible] cells acting as tumor
vaccines
is underway

L3 ANSWER 8 OF 15 MEDLINE
AN 97256080 MEDLINE
DN 97256080
TI Active immunization with tumor cells transduced by a novel AAV
plasmid-based gene delivery system
AU Clary B.M. [illegible] Philip R. Philip M.
Morse M.
Gilboa E. Lyerly H.K.
CS Department of Surgery, Duke University Medical Center, Durham, North
Carolina 27710, USA
NC HL67671-05 (NHLBI)
SO JOURNAL OF IMMUNOTHERAPY, (1997 Jan) 20 (1) 26-37
Journal code: CUQ
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199708
AB Ex vivo genetically engineered cytokine-secreting tumor cell
vaccines have been shown to prevent metastatic disease in animal
models of lung and breast cancer. Because of the inefficiency of existing
modes of gene delivery in transducing primary human tumor cells, it has
been difficult to clinically apply this strategy. In this study,
liposome-mediated delivery of an ***adeno*** - ***associated***
virus (AAV)-based plasmid containing the sequence for murine
gamma-interferon (gamma-IFN) (pMP6A-mIFN gamma) was used to generate
cytokine-secreting murine tumor cell ***vaccines***. High levels of
gamma-IFN and elevated class I major histocompatibility complex expression
after transfer of pMP6A-mIFN-gamma into the murine lung cancer cell line,
D122, was demonstrated. The efficiency of gene transfer was determined by
two different methods and was estimated to be 10-15%. Irradiated gamma-IFN
D122 cells generated by this novel gene delivery system
(D122 pMP6A-mIFN gamma) and also by standard retroviral methods (DIF2)
were administered as weekly vaccinations by intraperitoneal injection to
animals bearing 7-day-old intrafootpad D122 tumors. Hindlimb amputation
was performed when footpad diameters reached 7 mm, and lungs were
harvested 28 days later. Animals vaccinated with gamma-IFN secreting D122
cells produced by AAV-based plasmid delivery demonstrated a significant
delay in footpad tumor growth when compared with controls and DIF2 cells.
[illegible]
D122 pMP6A mIFN gamma were
free of pulmonary metastases 28 days after amputation, significantly
improved from the 0, 7, and 15% observed in animals vaccinated with
irradiated parental D122 cells, irradiated D122 cells lipofected with an
empty-cassette vector (pMP6A), or DIF2 cells, respectively. These results
and the ability to transfer genes with this delivery system to a broad
range of tumor types support its use in the generation of
cytokine-secreting tumor cell vaccinations for use in clinical trials.

L3 ANSWER 9 OF 15 MEDLINE
AN 96350351 MEDLINE
DN 96350351
TI Active immunotherapy with transiently transfected cytokine-secreting tumor
cells inhibits breast cancer metastases in tumor-bearing animals.
AU Coveney E. Clary B. Iacobucci M. Philip R. Lyerly K.
CS Department of Surgery, Duke University Medical Center, Durham, NC 27710,
USA.
SO SURGERY, (1996 Aug) 120 (2) 265-72; discussion 272-3.
Journal code: VC3. ISSN: 0039-6060.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals
EM 199612
AB BACKGROUND: Metastatic disease remains the most frequent cause of
treatment failure in the management of patients with breast cancer. A
novel method that allows delivery of a gene into primary tumor cells was
used to generate tumor cell ***vaccines*** to inhibit metastasis
formation in tumor-bearing hosts. METHODS: Inoculation of 2.5 x 10(4) 4T1
murine breast cancer cells into the footpads of BALB/c mice reliably leads
to tumor growth and pulmonary metastases. Interleukin-2 (IL-2)-secreting
4T1 cells (4T1-pMP6A IL-2) and control transduced 4T1 cells (4T1-pMP6A)
were generated by lipofection with a cationic liposome complexed to an
adeno - ***associated*** viral plasmid bearing the IL-2 gene
(pMP6A IL-2). Unmodified 4T1 cells were inoculated into the footpads on
day 0, and weekly immunization with phosphate-buffered saline solution or
2 x 10(6) irradiated 4T1, 4T1-pMP6A, or 4T1-pMP6A IL-2 cells commenced on
day 21. Hindlimb amputation was performed when tumors measured 6 mm in
diameter. Mice were killed 24 days after amputation, and metastatic
disease was assessed by weighing lungs at time of harvest.
RESULTS: A significant reduction was seen in the pulmonary metastatic load of mice
receiving IL-2 gene-modified tumor cell immunization (4T1 pMP6A IL-2) when
compared with mice given control immunizations.
CONCLUSIONS: These results
suggest that active immunization strategies with cytokine gene-modified
tumor cells generated by clinically relevant gene delivery systems may
prove useful in inhibiting the development of metastases from primary
breast cancer.

L3 ANSWER 10 OF 15 MEDLINE
AN 96249457 MEDLINE
DN 96249457
TI High-efficiency transfer of the T cell co-stimulatory molecule B7-2 to
lymphoid cells using high titer recombinant ***adeno*** -
associated virus vectors.
AU Chiorini J.A. Wendtner C.M. Urcelay E. Safer B. Hallek M. Kotin R.M.
CS Molecular Hematology Branch, National Heart, Lung and Blood Institute,
Bethesda, MD 20892.
SO HUMAN GENE THERAPY, (1995 Dec) 6 (12) 1531-41.
Journal code: A12. ISSN: 1043-0342.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199610
AB ***Adeno*** - ***associated*** virus (AAV) is a single-stranded DNA
virus that can either integrate or replicate in host cells. Production of
recombinant viral particles (rAAV) requires expression of the viral
structural genes and the viral inverted terminal repeats in cis. By using
an SV40 replicon to amplify the structural genes, the yield of recombinant
viral particles was increased 60-fold over a nonreplicating helper
plasmid. The rAAV particles produced by this system have similar physical
properties to wild-type particles, including buoyant density, size, and
morphology. This novel rAAV packaging system was used to produce rAAV

particles that contain the gene for the T cell co-stimulatory protein
B7-2. Transduction of the human nonadherent lymphoid [illegible]
LP-1 with
these particles significantly increased the percentage of cells
expressing
B7-2 from [illegible] to 20.0%. Expression of B7-2 in the human
lymphoid cell
line K[illegible] was also substantially increased. Targeting of
tumor cells
grown in suspension was hampered [illegible]
using
other viral or nonviral vector systems. [illegible] packaging system
for
recombinant AAV should allow generation of sufficient quantities
of B7-2
containing particles to develop tumor ***vaccines*** [illegible]
non-Hodgkin's
lymphoma

L3 ANSWER 11 OF 15 MEDLINE
AN 96135350 MEDLINE
DN 96135350
TI Adenovirus and ***adeno*** - ***associated*** [illegible]
vectors for
gene therapy
AU Berns K I, Giraud C
CS Department of Microbiology, Hearst Microbiology Research
Center, Cornell
University Medical College, New York, New York 10021, USA.
NC AI22251 (NIGMS)
GM50032
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES,
(1995 Nov 27) 772 95-104.
Ref: 48
Journal code: 5NM. ISSN: 0077-8923.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals; Cancer Journals
EM 199604

L3 ANSWER 12 OF 15 MEDLINE
AN 95277714 MEDLINE
DN 95277714
TI Efficient gene transfer with ***adeno*** - ***associated***
virus-based plasmids complexed to cationic liposomes for gene
therapy of
human prostate cancer
AU Vieweg J, Boczkowski D, Roberson K M, Edwards D W, Philip
M, Philip R,
Rudoll T, Smith C, Robertson C, Gilboa E
CS Department of Surgery, Duke University Medical Center,
Durham, North
Carolina 27710, USA.
NC CA 58192 (NCI)
SO CANCER RESEARCH, (1995 Jun 1) 55 (11) 2366-72.
Journal code: CNF. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199509
AB We have previously shown that treatment of rats bearing the
Dunning R3327
MatLyLu prostate tumor with human interleukin 2 (IL-2)
gene-modified
tumor cell preparations induces potent antitumor immunity in the
animal.
To test the clinical feasibility of using genetically modified tumor
vaccines for the treatment of prostate cancer, we have
explored
the use of a simplified gene delivery system based on liposomes to
introduce and express the IL-2 gene in the Dunning rat R3327
MatLyLu
prostatic tumor cell line (MatLyLu) and in short-term cultures of
primary
human prostatic tumor cells. Liposome [illegible] containing
the
adeno - ***associated*** virus inverted terminal
repeats
exhibited 3-10-fold higher levels of gene transfer and IL-2
expression
than did liposome complexes with non- ***adeno*** -
associated
virus containing plasmids. Single transfections resulted in IL-2
expression for an extended period of time that exceeded severalfold
the
amount of IL-2 secreted from retrovirally transduced MatLyLu
cells.
X-irradiation of cells (4000 rads) prior to transfection did not affect
cytokine secretion, indicating that liposome-mediated gene transfer
does
not depend on cell proliferation. High levels of gene transfer and
IL-2
expression were also achieved in short-term cultures of primary
human
prostatic tumor cells established from tumor specimens obtained
following
radical prostatectomy of cancer patients. Depending on the type of
liposome used, IL-2 levels secreted from the human prostatic tumor
cells
were comparable to or exceeded the levels of IL-2 secreted from
retrovirally transduced MatLyLu cells, which induced antitumor
immunity in
the rat model. The ability to culture and expand in vitro human
prostatic
tumor cells, and the use of a simple and highly efficient gene
transfer
method to generate genetically modified tumor ***vaccines***,
set the
stage for clinical exploration of gene-based immunotherapy of
prostate
cancer

L3 ANSWER 13 OF 15 MEDLINE
AN 94187712 MEDLINE
DN 94187712
TI Efficient and sustained gene expression in primary T lymphocytes
and
primary and cultured tumor cells mediated by ***adeno*** -
associated virus plasmid DNA complexed to cationic
liposomes
AU Philip R, Brunette E, Kilinski L, Murugesh D, McNally M A,
Ucar K,
Rosenblatt J, Okarma T B, Lebkowski J S
CS Applied Immune Sciences, Inc., Santa Clara, California 95054.
SO MOLECULAR AND CELLULAR BIOLOGY, (1994 Apr) 14
(4) 2411-8.
Journal code: NGY. ISSN: 0270-7306.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199406
AB We have used cationic liposomes to facilitate ***adeno*** -
associated virus (AAV) plasmid transfections of primary
and
cultured cell types. AAV plasmid DNA complexed with liposomes
showed
levels of expression several fold higher than those [illegible]
with
standard plasmids. In addition, long-term expression (>30 days) of
the
gene, unlike the transient expression demonstrated by typical
liposome-mediated transfection with standard plasmids, was
observed.
Southern analysis of chromosomal DNA further substantiated the
hypothesis
that the long-term expression was due to the presence of the
transgene in
the AAV plasmid-transfected group and not in the standard
plasmid-transfected group. AAV plasmid-liposome complexes
induced levels
of transgene expression comparable to those obtained by
recombinant AAV
transduction. Primary breast, ovarian, and lung tumor cells were
transfectable with the AAV plasmid DNA-liposome complexes.
Transfected
primary and cultured tumor cells were able to express transgene
product
even after lethal irradiation. High-level gene expression was also
observed in freshly isolated CD3+, CD4+, and CD8+ T cells from
normal
human peripheral blood. Transfection efficiency ranged from 10 to
50% as
assessed by intracellular interleukin 2 levels in interleukin-2-
transfected cells. The ability to express transgenes in primary tumor
and
lymphoid cells may be applied toward tumor ***vaccine***

studies and
protocols which may eventually permit highly specific modulation of the
cellular immune response in cancer and AIDS

L3 ANSWER 4 OF [illegible]
AN 71132252 MEDLINE
DN 71132252
TI Serologic surveillance for ***adeno*** - ***associated*** satellite
virus antibody in military recruits
AU [illegible]
Parks W P
Melnick J L
SO JOURNAL OF [illegible] (1971 May) 106(5) [illegible]
Journal code IFB ISSN 0022-1767
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 197106

L3 ANSWER [illegible] MEDLINE
AN 69167166 MEDLINE
DN 69167166
TI Effect of ***adeno*** - ***associated*** viruses on the oncogenicity
of adenovirus 12
AU [illegible]
SO NATIONAL CANCER INSTITUTE MONOGRAPHS, (1968 Dec) 29 433
Journal code [illegible] 0083-1921
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 196907

file medline embase biosis inpadoc caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.65	5.00

FILE 'MEDLINE' ENTERED AT 17:38:59 ON 23 JAN 2001

FILE 'EMBASE' ENTERED AT 17:38:59 ON 23 JAN 2001

FILE 'BIOSIS' ENTERED AT 17:38:59 ON 23 JAN 2001

FILE 'INPADOC' ENTERED AT 17:38:59 ON 23 JAN 2001

FILE 'CAPLUS' ENTERED AT 17:38:59 ON 23 JAN 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

d his

FILE 'MEDLINE' ENTERED AT 17:35:07 ON 23 JAN 2001

FILE 'MEDLINE' [illegible] AT 17:37:21 ON 23 JAN 2001
L1 [illegible] VACCINE AB,BI
L2 967 S ADENO-ASSOCIATED AB,BI
L3 [illegible] L2 AND VACCINE? AB,BI
L4 [illegible]

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'
ENTERED AT 17:38:59 ON 23
JAN 2001

s l4

'AB' IS NOT A VALID FIELD CODE
L5 9 L4

dup rem l5

PROCESSING COMPLETED FOR L5
L6 6 DUP REM L5 (3 DUPLICATES REMOVED)

d 1- bib ab

YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2000:[illegible] CAPLUS
DN 134:46767
TI Use of viral vectors and charged molecules for gene therapy
IN Tufaro, Francis; Yeung, Sonia; Horsburgh, Brian
PA Neurovex Therapeutics, Inc., USA
SO PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI WO 2000076[illegible] A1 20001221 WO 2000-US16167 20000612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, [illegible]
[illegible], GH, GM, HR, HU,
[illegible], LK, LR, LS,
LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
[illegible]
YU, ZA
[illegible]
RW: [illegible]
AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
[illegible], ML, MR, NE, SN, TD, TG
PRAI US 1999-128875 19990611
AB The invention provides viral vectors and charged mols. for use in gene
therapy. Viruses include herpesviruses, adeno-associated virus, adenovirus,
[illegible] etc. Charged mols. include polysaccharides,
polylysine, etc.
RE.CNT 3
RE
(1) Debs, US 5827703 A 1998 CAPLUS
(2) Lambert, US 5827707 A 1998 CAPLUS
(3) Wu, US 5728399 A 1998 CAPLUS

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2000:814317 CAPLUS
DN 133:361907
TI Compositions and methods for identifying antigens which elicit an immune
response
IN Chen, Si-Yi; Yu, Chaoyang
PA Wake Forest University, USA
SO PCT Int. Appl., 164 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI WO 2000067761 A1 20001116 WO 2000-US12177 20000505
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,

BJ, CF,
CG, CI, CM, GA, [illegible] GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-132750 19990506
US 1999-132752 19990506
AB This invention relates to an expression vector wherein said
expression [illegible]
[illegible] polynucleotide
encoding a signal sequence, a polynucleotide encoding an antigen
protein
or peptide, a polynucleotide encoding a cell binding element, and a
polynucleotide polyadenylation sequence all operatively linked.
More
particularly, it relates to the method of eliciting an immune
response
directed against an antigen in a mammal comprising the steps of
introducing the expression vector into a cell, [illegible] the vector
to
produce an antigen under conditions wherein the antigen is secreted
from
the cell, endocytosing the secreted antigen into the cell, processing
the
antigen, and presenting fragments to a receptor to elicit a T-cell
response. In addn., this invention relates to a ***vaccine***
and a
method of use. The invention also relates to the method of
identifying
MHC II restricted epitopes.
RE.CNT 9
RE
(1) Berger, US 5587455 A 1996 CAPLUS
(2) Carson, US 5679647 A 1997 CAPLUS
(3) Commonwealth Scientific And Industrial Research Organisation,
WO 9700321 A1
1997 CAPLUS
(4) Dranoff, US 5637483 A 1997 CAPLUS
(5) Johnston, US 5703057 A 1997 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2000:553678 CAPLUS
DN 133:160529
TI Generation of genetic ***vaccines*** and immunomodulatory
polynucleotides by non stochastic directed evolution techniques
IN Short, Jay M.
PA Diversa Corporation, USA
SO PCT Int. Appl., 718 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 11
PATENT NO. KIND DATE APPLICATION NO.
DATE
--------------- ---- -------- --------------- --------
PI WO 2000046344 A2 20000810 WO 2000-US3086
20000204
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH,
CN, CR, CU,
CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL,
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA,
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI,
[illegible]
ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT,
BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6171820 B1 20010109 US 1999-246178 19990204
PRAI US 1999-246178 19990204
US 1995-8311 19951207
US 1995-8316 19951207
US 1996-651568 19960522
US 1996-677112 19960709
US 1996-760489 19961205
US 1997-962504 19971031
US 1998-185373 19981103
AB This invention provides methods of obtaining novel
polynucleotides and
encoded polypeptides by use of non stochastic methods of directed
evolution (DirectEvolution.RTM.). These methods include
non-stochastic
polynucleotide site-satn. mutagenesis (Gene Site Satn.
Mutagenesis.RTM.)
and non-stochastic polynucleotide reassembly
(GeneReassembly.RTM.).
Through use of the claimed methods, genetic ***vaccines*** ,
enzymes,
and other desirable mols. can be evolved towards desirable
properties.
For example, ***vaccine*** vectors can be obtained that exhibit
increased efficacy for use as genetic ***vaccines*** . Vectors
obtained by using the methods can have, for example, enhanced
antigen
expression, increased uptake into a cell, increased stability in a cell,
ability to tailor an immune response, and the like. This invention
provides methods of obtaining novel enzymes that have optimized
phys.
and/or biol. properties. Furthermore, this invention provides
methods of
obtaining a variety of novel biol. active mols., in the fields of
antibiotics, pharmacotherapeutics, and transgenic traits.

L6 ANSWER 4 OF 6 MEDLINE DUPLICATE 1
AN 2000142993 MEDLINE
DN 20148983
TI Recombinant ***adeno*** - ***associated*** virus
expressing human
papillomavirus type 16 E7 peptide DNA fused with heat
shock
protein DNA as a potential ***vaccine*** for cervical cancer.
AU Liu D W; Tsao Y P; Kung J T; Ding Y A; Sytwu H K; Xiao X;
Chen S L
CS Department of Microbiology and Immunology, Taipei, Taiwan,
Republic of
China.
SO [illegible] (2000 Mar) 74 (6) 2888-94.
Journal code: [illegible]. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 200006
EW 20000602
AB In this study, we explore a potential ***vaccine*** for human
papillomavirus (HPV)-induced tumors using heat shock
protein as
an adjuvant, a peptide ***vaccine*** [illegible], and
adeno -
associated virus (AAV) as a gene delivery vector. The
tumor
vaccine was devised by constructing a chimeric gene
which
contained HPV type 16 E7 cytotoxic T-lymphocyte (CTL) epitope
DNA (M. C.
Feltkamp, H. L. Smits, M. P. Vierboom, R. P. Minnaar, B. M. de
Jongh, J.
W. Drijfhout, J. ter Schegget, C. J. Melief, and W. M. Kast, Eur. J.
Immunol. 23:2242-2249, 1993) fused with the heat shock protein
gene as a
tumor ***vaccine*** delivered via AAV. Our results
demonstrate that
this ***vaccine*** can eliminate tumor cells in syngeneic
animals and
induce CD4- and CD8-dependent CTL activity in vitro. Moreover,
studies
with knockout mice with distinct T-cell deficiencies confirm that
CTL-induced tumor protection is CD4 and CD8 dependent. Taken
together, the
evidence indicates that this chimeric gene delivered by AAV has
potential
as a cervical cancer ***vaccine***

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1999:529250 CAPLUS
DN 131:140500
TI Genetic ***vaccine*** vector engineering by DNA shuffling
IN Punnonen, Juha; Stemmer, Willem P. C.; Whalen, Robert Gerald;
Howard,
Russell
PA Maxygen, Inc., USA
SO PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4
PATENT NO. KIND DATE APPLICATION NO.

DATE

PI WO 9941369 A2 19990819 WO 1999-US3022 19990210
WO 9941369 A3 19990923
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 9932910 A1 19990830 AU 1999-32910 19990210
EP 1056842 A2 20001206 EP 1999-932508 19990210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1998-21769 19980211
US 1998-74294 19980211
WO 1999-US3022 19990210
AB This invention provides methods of obtaining ***vaccines*** by use of DNA shuffling. Through use of the claimed methods, vectors can be obtained which exhibit increased efficacy for use as genetic ***vaccines***. Two or more genetic components are provided that confer upon the ***vaccine*** the ability to direct an immune response so as to achieve an optimal response to vaccination. For example, the genetic ***vaccines*** can include a component that provides optimal antigen release, a component that provides optimal prodn. of cytotoxic T lymphocytes, a component that directs release of an immunomodulator, a component that directs release of a chemokine, and or a component that facilitates binding to, or entry into, a desired target cell type. For example, a component can confer improved binding to, and uptake of, the genetic ***vaccine*** to target cells such as antigen-presenting cells or antigen-presenting cells. Addnl. components include those that direct antigen peptides derived from uptake of an antigen into a cell to presentation on either Class I or Class II mols. For example, one can include a component that directs antigen peptides to presentation on Class I mols. and comprises a polynucleotide that encodes a protein such as tapasin, TAP-1 and TAP-2, and/or a component that directs antigen peptides to presentation on Class II mols. and comprises a polynucleotide that encodes a protein such as an endosomal or lysosomal protease.

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1998:...
DN 128:...
TI ...immune system and cells generated with ***papilloma*** viruses or their sequences
IN Kleinschmidt, Juergen; Jochmus, Ingrid; Gissmann, Lutz; Mueller, Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI DE 19631357 A1 19980205 DE 1996-19631357 19960802
WO 9805790 A1 19980212 WO 1997-DE1629 19970730
W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 917586 A1 19990526 EP 1997-935500 19970730
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A ***vaccine*** against cells infected with human ***papillomavirus*** (HPV) comprises a vector contg. a nucleic acid which encodes a fusion polypeptide, where the fusion polypeptide consists of a structural ***papillomavirus*** (poly)peptide and a nontransforming (poly)peptide encoded by an early ***papillomavirus*** gene. Thus, the open reading frame (ORF) encoding C-terminally truncated major capsid protein L1 of HPV 16 was amplified by PCR, inserted into vector pUC19, and ligated to an ORF fragment encoding the 1st 50 amino acids of protein E6 of HPV 16; the deletion from E6 destroys the transforming properties of the transcript. The L1-E6 fusion gene was excised and inserted into adenoassocd. virus vector pUF2.

=> s ...
'AB' IS NOT A VALID FIELD CODE
L7 114 L3

=> d his

(FILE 'HOME' ENTERED AT 17:35:07 ON 28 JAN 2001)

FILE 'MEDLINE, ...' ENTERED AT 17:... ON 28 JAN 2001
L1 4... PAPILLOMA?/AB,BI
L2 ... (VACCINE#)/AB,BI
L3 18 S L2 AND VACCINE#/AB,BI
L4 ... S L1 AND L3

FILE 'MEDLINE, EMBASE, BIOSIS, ... CAPLUS' ENTERED AT 17:38:59 ON 28 JAN 2001
L5 9 S L4
L6 ... DUP REM L5 (3 DUPLICATES REMOVED)
L7 114 S L3

=> s l7 and papilloma? ab,bi
'AB' IS NOT A VALID FIELD CODE
L8 9 L7 AND PAPILLOMA? AB,BI

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 6 DUP REM L8 (3 DUPLICATES REMOVED)

=> e kleinshmidt jurgen au
E1 4 KLEINSELBECK STEFAN/AU
E2 1 KLEINSGUETL KARL/AU
E3 0 --> KLEINSHMIDT JURGEN/AU
E4 6 KLEINSIEPE-LIEGHAUS HEIKE WERNER/AU
E5 2 KLEINSMAN P J/AU
E6 1 KLEINSMAN R/AU
E7 1 KLEINSMIDT J/AU
E8 1 KLEINSMITH A M/AU
E9 2 KLEINSMITH D/AU
E10 2 KLEINSMITH D A/AU
E11 1 KLEINSMITH D A M/AU
E12 1 KLEINSMITH D ANNE/AU

=> e kleinschmidt jurgen au
E1 2 KLEINSCHMIDT JULIA J/AU
E2 3 KLEINSCHMIDT JULIUS/AU
E3 17 --> KLEINSCHMIDT JURGEN/AU
E4 13 KLEINSCHMIDT JURGEN A/AU
E5 96 KLEINSCHMIDT K/AU
E6 2 KLEINSCHMIDT K C/AU
E7 3 KLEINSCHMIDT K M/AU

E8 2 KLEINSCHMIDT KARL HEINZ AU
E9 3 KLEIN[illegible] AU
E10 48 KLEINSCHMIDT KLAUS AU
E11 1 KLEINSCHMIDT KURT AU
E12 1 KLEINSCHMIDT KURT C AU

s e2-e4

L10 50 ("KLEINSCHMIDT JURGEN" AU OR "KLEINSCHMIDT JURGEN A" AU)

s l10 and papilloma? ab,bi

'AB' IS NOT A VALID FIELD CODE
L11 1 L10 AND PAPILLOMA? AB,BI

d

L11 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AN 2000:359342 CAPLUS
DN 133:99254
TI Preclinical study on gene therapy of cervical carcinoma using adeno-associated virus vectors
AU Kunke, David; Grimm, Dirk; Denger, Stefanie; Kreuzer, Jorg; Delius, Hajo; Komitowski, Dymitr; ***Kleinschmidt, Jurgen A.***
CS Deutsches Krebsforschungszentrum, Forschungsschwerpunkt Angewandte Tumorvirologie, Heidelberg, D-69120, Germany
SO Cancer Gene Ther. (2000), 7(5), 766-777
CODEN: CGTHEG; ISSN: 0929-1903
PB Nature America Inc.
DT Journal
LA English
RE.CNT 62
RE
(2) Alvarez-Salas, L; Proc Natl Acad Sci USA 1998, V95, P1189 CAPLUS
(3) Bottazzi, B; J Immunol 1992, V148, P1280 CAPLUS
(4) Chatterjee, S; Methods 1993, V5, P51 CAPLUS
(5) Chomczynski, P; Anal Biochem 1987, V162, P156 CAPLUS
(6) Conrad, C; Gene Ther 1996, V3, P658 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

e jochmus ingrid au

E1 6 JOCHMUS H AU
E2 54 JOCHMUS I AU
E3 24 --> JOCHMUS INGRID/AU
E4 1 JOCHMUS INGRID DIPL [illegible] AU
E5 1 JOCHMUS I AU
E6 17 JOCHMUS KUDIELKA I AU
E7 5 JOCHMUS KUDIELKA INGRID AU
E8 5 JOCHNER HANS AU
E9 1 JOCHNER JUN JOSEF AU
E10 4 JOCHNER N AU
E11 4 JOCHNER NICOLA AU
E12 4 JOCHNER NICOLA MARIA AU

s e2-e4

L12 79 ("JOCHMUS I" AU OR "JOCHMUS INGRID" AU OR "JOCHMUS INGRID DIPL BIOL DR" AU)

s l12 and papilloma? ab,bi

'AB' IS NOT A VALID FIELD CODE
L13 53 L12 AND PAPILLOMA? AB,BI

s l13 and vaccine# ab,bi

'AB' IS NOT A VALID FIELD CODE
L14 11 L13 AND VACCINE# AB,BI

dup rem l14

PROCESSING COMPLETED FOR L14
L15 7 DUP REM L14 (4 DUPLICATES REMOVED)

s l13 and vector# ab,bi

'AB' IS NOT A VALID FIELD CODE
L16 6 L13 AND VECTOR# AB,BI

dup rem l16

PROCESSING COMPLETED FOR L16
L17 6 DUP REM L16 (0 DUPLICATES REMOVED)

d l17 1- bib ab

YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L17 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2000:865093 CAPLUS
DN 134:16537
TI Cytotoxic T-cell epitopes of the ***Papillomavirus*** L1-Protein and their use in diagnostics and therapy
IN Schaefer, Klaus; Faath, Stefan; ***Jochmus, Ingrid***; Nieland, John; Osen, Wolfram
PA Medigene A.-G., Germany; Deutsches Krebsforschungszentrum (DKFZ)
SO Ger. Offen., 24 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19925199	A1	20001207	DE 1999-19925199	19990601
WO 2000073555	A1	20001207	WO 2000-EP5006	20000531

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRAI DE 1999-19925199 19990601
AB The available invention concerns ***Papillomavirus*** T-cell epitopes with the amino acid sequence [illegible] HLFNRAGTV, YLRREQMFV, TLQANKSEV, [illegible] YLPPVPVSKV, YDLQFIFQLCKITLTADVMTYIHSMNSTI [illegible] NLASSNYFPTPSGSMVTSDAQIFNKPYWLQRAQGHNNGICWGNQLFV, and of a functionally active variant thereof, as

PATENT NO. KIND DATE APPLICATION NO. DATE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19925235	A1	20001207	DE 1999-19925235	19990601
WO 2000073464	A1	20001207	WO 2000-EP5005	20000531

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRAI DE 1999-19925235 19990601
AB The available invention concerns ***Papillomavirus*** T-cell epitopes with an amino acid sequence [illegible] and or a functionally active variant thereof, as well as their use in diagnostics and therapy
RE.CNT 3
RE
(1) Anon; EP 0375555 A1 CAPLUS
(2) Anon; EP 0451550 A2 CAPLUS
(3) Anon; WO 9302184 CAPLUS

L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2000:865090 CAPLUS
DN 134:16536
TI Cytotoxic T-cell epitopes of the ***Papillomavirus*** L1 proteins and their use in diagnosis and therapy
IN Nieland, John; ***Jochmus, Ingrid***
PA Medigene A.-G., Germany
SO Ger. Offen., 24 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19925199	A1	20001207	DE 1999-19925199	19990601
WO 2000073555	A1	20001207	WO 2000-EP5006	20000531

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRAI DE 1999-19925199 19990601
AB The available invention concerns ***Papillomavirus*** T-cell epitopes with the amino acid sequence [illegible] HLFNRAGTV, YLRREQMFV, TLQANKSEV, [illegible], NLASSNYFPTPSGSMVTSD [illegible], YDLQFIFQLCKITLTADVMTYIHSMNSTI [illegible], and of a functionally active variant thereof, as

well as their use in diagnosis and therapy
RE.CNT 3
RE
(1) Anon; EP 0375555 A1 CAPLUS
(2) Anon; EP 0451550 A2 CAPLUS
(3) Anon; WO 9302184 CAPLUS

L17 ANSWER 2 OF 6 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN [illegible] EW 199921 UW 199921
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE
SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR
SEQUENCES THEREOF
IN KLEINSCHMIDT, JUERGEN; JOCHMUS, INGRID;
GISSMANN, LUTZ; MUELLER, MARTIN
INS KLEINSCHMIDT, JUERGEN; ***JOCHMUS INGRID***
; GISSMANN LUTZ; MUELLER
MARTIN
INA DE; DE; DE; US
PA DEUTSCHES KREBSFORSCHUNGSZENTRUM
STIFTUNG DES OEFFENTLICHEN RECHTS
PAS DEUTSCHES KREBSFORSCH
PAA DE
TL English, French, German
LA German
DT Patent
PIT EPA1 PUBL. OF APPLICATION WITH SEARCH REPORT
PI EP 917586 A1 19990526
DS R: AT BE CH DE DK ES FI FR GB IT LI NL SE
AI EP 1997-935500 A 19970730
PRAI WO 1997-DE1629 W 19970730
DE 1996-19631357 A 19960802

L17 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1999:708918 CAPLUS
DN 131:335792
TI Human ***papillomavirus*** E6 and E7 protein derived
polypeptides with
immunogenic properties and modified biological activities for
cancer
diagnosis and therapy
IN Gissmann, Lutz; ***Jochmus, Ingrid***
PA Deutsches Krebsforschungszentrum Stiftung des Offentlichen
Rechts, Germany
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO.
DATE
--------------- ---- -------- --------------- --------
PI WO 9955876 A2 19991104 WO 1999-DE1331
19990430
WO 9955876 A3 20000323
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
CU, CZ, DK,
EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
MK, MN, MW,
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TR,
TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE,
CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 19819476 C1 20000105 DE 1998-19819476 19980430
AU 9948954 A1 19991116 AU 1999-48954 19990430
PRAI DE 1998-19819476 19980430
WO 1999-DE1331 19990430
AB The invention concerns toxic or transforming polypeptide(s) with
immunogenic properties that are 10-40 amino acid fragments with
altered
biol. activities of human ***papillomavirus*** (HPV16 or
HPV18) E6 or
E7 proteins. The invention also relates to the DNA that codes a
polypeptide of this type, to a method for producing a polypeptide of
this
type, the usage of the DNA and polypeptide for active
immunization, and to
antibodies against the polypeptide

L17 ANSWER 5 OF 6 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN 46105879 INPADOC EW 199809 UW 199843
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE
SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR
SEQUENCES THEREOF
IN KLEINSCHMIDT, JUERGEN; JOCHMUS, INGRID;
GISSMANN, LUTZ; MUELLER, MARTIN
INS KLEINSCHMIDT JUERGEN; ***JOCHMUS INGRID***
; GISSMANN LUTZ; MUELLER
MARTIN
INA DE; DE; DE; US
PA DEUTSCHES KREBSFORSCHUNGSZENTRUM
STIFTUNG DES OEFFE; KLEINSCHMIDT,
JUERGEN; JOCHMUS, INGRID; GISSMANN, LUTZ;
MUELLER, MARTIN
PAS DEUTSCHES KREBSFORSCH; KLEINSCHMIDT
JUERGEN; JOCHMUS INGRID; GISSMANN
LUTZ; MUELLER MARTIN
PAA DE; DE; DE; DE; US
TL English, French, German
LA German
DT Patent
PIT WOA1 PUBL. OF THE INT.APPL. WITH INT.SEARCH
REPORT
PI WO 9805790 A1 19980212
DS RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL
PT SE
W: JP US
AI WO 1997-DE1629 A 19970730
PRAI DE 1996-19631357 A 19960802

L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1998:102997 CAPLUS
DN 128:153148
TI Method for activating the immune system against cells associated
with
papilloma viruses or their sequences
IN Kleinschmidt, Juergen; ***Jochmus, Ingrid***; Gissmann,
Lutz; Mueller,
Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen
Rechts,
Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO.
DATE
--------------- ---- -------- --------------- --------
PI DE 19631357 A1 19980205 DE 1996-19631357
19960802
WO 9805790 A1 19980212 WO 1997-DE1629
19970730
W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE
EP 917586 A1 19990526 EP 1997-935500 19970730
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A vaccine against cells infected with human
papillomavirus (HPV)
comprises a ***vector*** contg. a nucleic acid which encodes a
fusion
polypeptide, where the fusion polypeptide consists of a structural
papillomavirus (poly)peptide and a nontransforming
(poly)peptide
encoded by an early ***papillomavirus*** gene. Thus, the open
reading
frame (ORF) encoding C-terminally truncated major capsid protein
L1 of HPV
16 was amplified by PCR, inserted into ***vector*** pUC19,
and ligated
to an ORF fragment encoding the 1st 50 amino acids of protein E6
of HPV
16; the deletion from E6 destroys the transforming properties of the
transcript. The L1-E6 fusion gene was excised and inserted into
adeno assocd. virus ***vector*** pUF2

d l15 1- bib ab

YOU HAVE ... CONTINUE? Y/(N):y

L15 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:861414 CAPLUS
DN 134:16535
TI Test system for in vitro detection of an antigen-specific immune response
IN ***Jochmus, Ingrid*** ; Nieland, John
PA Medigene Aktiengesellschaft, Germany
SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000073790	A1	20001207	WO 2000-EP5003	20000531

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

DE 19925234	A1	20001214	DE 1999-19925234	19990601

PRAI DE 1999-19925234 19990601
AB The invention relates to a test system comprising at least one capsomer, at least one stable capsomer, at least one capsid, at least one VLP and/or at least one CVLP and at least one target cell presenting an antigen, esp. a B cell, a macrophage, a predendritic cell, a dendritic cell, embryonal cell and/or fibroblast, which has been incubated with at least one capsomer, at least one stable capsomer, at least one capsid, at least one VLP and/or at least one CVLP, in order to detect an antigen-specific immune response in vitro, e.g. a cellular immune response from effector cells of the immune system, esp. B cells, NK cells, preferably T cells, more preferably cytotoxic T cells or helper T cells. The invention also relates to the use thereof in diagnosis and therapy.
RE.CNT 7
RE

(1) Gissmann, L; WO 9918220 A 1999 CAPLUS
(2) Greenstone, H; PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA 1998, V95(4), P1800 CAPLUS
(4) Müller, M; VIROLOGY 1997, V234, P93 CAPLUS
(5) Peng, S; VIROLOGY 1998, V240, P147 CAPLUS
(7) Us Health; WO 9405792 A 1994 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 7 EMBASE COPYRIGHT 2004 ELSEVIER SCI. B.V. DUPLICATE 1
AN 2000127767 EMBASE
TI Immunization against human ***papillomavirus*** infection and associated neoplasia.
AU Osen W.; ***Jochmus I.*** ; Muller M.; Gissmann L.
CS L. Gissmann, German Cancer Research Center, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany. l.gissmann@dkfz.de
SO Journal of Clinical Virology, (2000) ... .
ISSN: 1386-6532 CODEN: JCVIFB
PUI S 1386-6532(00)00090-4
CY Netherlands
DT Journal; Article
FS 004 Microbiology
016 Cancer
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA English
SL English
AB Background: Chimeric virus like particles (CVLPs) constructed by fusing human ***papillomavirus*** type 16 (HPV16) E7 sequences into the C-terminus of the viral L1 gene constitute the first generation of preventive and therapeutic HPV ***vaccines*** . Even though vaccination with DNA is highly efficient in the induction of a cytotoxic T-cell (CTL) response utilization of a DNA ***vaccine*** in the HPV context, it has been hampered by concern for the oncogenic potential of the E6 and E7 proteins encoded by the viral oncogenes. Objective: To consider the use and impact of E7 DNA for immunization. Experimental: In addition to hemagglutination inhibition, a versatile assay to measure neutralization of yeast cell-derived pseudovirions carrying a green fluorescence reporter gene has now been developed. Mice immunized with the HPV16 CVLPs generate E7-specific CTLs, which kill E7-expressing or E7 peptide loaded RMA-cells, protect against tumor formation by syngeneic HPV transformed cells and also induce regression of already established tumors. Since generation of CTL response is achieved by presentation of epitopes as short peptides together with appropriate MHC class I molecules, complete proteins are not required. Instead a shuffled E7 protein has now been used successfully for generating CTL responses comparable to the CTL responses in mice. Conclusions: Our preliminary results suggest that immunization with E7 shuffled DNA yields a response directed against the authentic E7 protein. Furthermore, booster immunization with E7 shuffled DNA would avoid inhibition by neutralizing antibodies. (c) 2000 Elsevier Science B.V.

L15 ANSWER 3 OF 7 MEDLINE DUPLICATE 2
AN 2000464922 MEDLINE
DN 20040922
TI Chimeric virus-like particles of the human ***papillomavirus*** type 16 (HPV 16) as a prophylactic and therapeutic ***vaccine***.
AU ***Jochmus I*** ; Schafer K; Faath S; Muller M; Gissmann L
CS MediGene AG, Martinsried, Germany.
SO ARCHIVES OF MEDICAL RESEARCH, (1999 Jul-Aug) 30 (4) 269-74. Ref: 31
Journal code: BIC; ISSN: 0188-0128.
CY Mexico
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FM 200005
EW 20000502
AB Infection by certain human ***papillomaviruses*** (HPV), most notably HPV types 16 and 18, is the major risk factor for cervical cancer. Worldwide, this disease represents the second most frequent malignant tumor in women, thus, there is urgent need for efficient therapy and prevention. The natural history of cervical cancer and its precursors (cervical intraepithelial neoplasia), as well as animal experiments, strongly suggest that the immune system controls both the primary infection (by neutralizing antibodies directed against the major structural protein L1) and the progression of the disease (via cytotoxic T cells specific for the viral oncoproteins expressed in transformed cells, e.g., E7). By the expression of an HPV 16 L1E7 fusion protein, we have generated chimeric virus-like particles (CVLPs). Immunization of mice with CVLPs induces neutralizing antibodies directed against L1 virus-like particles (devoid of the E7 portion) and E7-specific T cells as measured in vitro. Vaccinated animals are protected against tumor growth following

inoculation of syngeneic HPV 16-transformed cells. In addition, we observed a therapeutic effect of vaccination on pre-existing tumors. This
data allowed us to conclude that CVLPs are suitable for prevention and
therapy of HPV infection. A ***vaccine*** based on HPV 16 L1E7 CVLPs
is currently under development.

L15 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 1998:102997 CAPLUS
DN 128:153146
TI Method for activating the immune system against cells associated with
papilloma viruses or their sequences
IN Fleischmann, Juergen; ***Jochmus, Ingrid***; Gissmann, Lutz; Mueller,
Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts,
Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

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PI DE 19631357 A1 19980205 DE 1996-19631357 19960802
WO 9805790 A1 19980212 WO 1997-DE1629 19970730
W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 917586 A1 19990526 EP 1997-935500 19970730
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A ***vaccine*** against cells infected with human
papillomavirus (HPV) comprises a vector contg. a nucleic acid
which encodes a fusion polypeptide, where the fusion polypeptide consists
of a structural ***papillomavirus*** (poly)peptide and a
nontransforming (poly)peptide encoded by an early ***papillomavirus***
gene. Thus, the open reading frame (ORF) encoding C-terminally truncated
major capsid protein L1 of HPV 16 was amplified by PCR, inserted into
vector pUC19, and ligated to an ORF fragment encoding the 1st 50 amino
acids of protein E6 of HPV 16, the deletion from E6 destroys the
transforming properties of the transcript. The L1-E6 fusion gene was
excised and inserted into adeno-assocd. virus vector pUF2.

L15 ANSWER 5 OF 7 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 1998166766 EMBASE
TI [Epidemiology, etiology and prevention of cervical carcinoma].
EPIDEMIOLOGIE, ATIOLOGIE UND PRAVENTION DES ZERVIXKARZINOMS.
AU Schneider A.; Durst M.; ***Jochmus I.***; Gissmann L.
CS Prof. A. Schneider, Abteilung Frauenheilkunde, Friedrich-Schiller-
Universitat, Bachstrasse 18, D-7740 Jena, Germany
SO Onkologe, (1998) 4/2 (110-125).
Refs: 152
ISSN: 0947-8965 CODEN: ONKOF4
CY Germany
DT Journal; General Review
FS 004 Microbiology
005 General Pathology and Pathological Anatomy
016 Cancer
017 Public Health, Social Medicine and Epidemiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA German
SL German

L15 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 1997:739003 CAPLUS
DN 128:12421
TI Immunological aspects of the E6 and E7 oncogenes: tools for diagnosis and
therapeutic intervention
AU ***Jochmus, Ingrid***; Gissmann, Lutz
CS USA
SO Papillomaviruses Hum. Cancer (1997), 137-165. Editor(s): Tommasino,
Massimo. Publisher: Landes, Austin, Tex.
CODEN: 65HFAP
DT Conference; General Review
LA English
AB A review and discussion with 84 refs. Antibodies to early HPV (human
papillomavirus) proteins such as E6 and E7 which are
constitutively expressed in HPV infected epithelial cells do not influence
the outcome of infection. However, they seem to be a marker of
HPV-related malignant tumors that develop as a late consequence of virus
persistence. Understanding mechanisms that enable the virus to escape
immune surveillance by the host are of particular importance for the
development of a therapeutic ***vaccine***. Results from animal
expts. and preliminary data obtained from clin. trials with cervical
cancer patients indicate that therapy using the HPV E6 or E7 antigens as
therapeutic ***vaccines*** could be a successful means for the
treatment of patients with cancerous or precancerous HPV-assocd.
lesions.

L15 ANSWER 7 OF 7 MEDLINE DUPLICATE 3
AN 93378357 MEDLINE
DN 93378357
TI Immune response to genital ***papillomavirus*** infections in women.
Prospects for the development of a ***vaccine*** against cervical
cancer.
AU Gissmann L; ***Jochmus I***; Nindl I; Muller M
CS Forschungsschwerpunkt Angewandte Tumorvirologie, Deutsches
Krebsforschungszentrum, Heidelberg, Germany.
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1993 Aug 12) 690 80-5. Ref:
27
Journal code: 5NM. ISSN: 0077-8923.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals; Cancer Journals
EM 199312

=> e gissmann lutz/au

E1 1 GISSMANN/AU
E2 431 GISSMANN L/AU
E3 177 --> GISSMANN LUTZ/AU
E4 8 GISSMANN LUTZ PROF/AU
E5 2 GISSMANN LUTZ PROF DIPL BIOL D/AU
E6 13 GISSMANN LUTZ PROF DR/AU
E7 1 GISSMULLER A/BELAS/AU
E8 1 GISSON B S/AU
E9 1 GISSONI R H/AU
E10 1 GISSOT A/AU
E11 9 GISSOT ARNAUD/AU
E12 1 GISSOT L/AU

=> s e2-e6

L18 626 ("GISSMANN L"/AU OR "GISSMANN LUTZ"/AU OR "GISSMANN LUTZ PROF
"/AU OR "GISSMANN LUTZ PROF DIPL BIOL D"/AU OR "GISSMANN
LUTZ PROF DR"/AU)

=> s l18 and papilloma?/ab,bi

'AB' IS NOT A VALID FIELD CODE
L19 547 L18 AND PAPILLOMA?/AB,BI

=> s l19 and vector#/ab,bi

AB' IS NOT A VALID FIELD CODE
L20 24 L19 AND VECTOR# AB,BI

s l20 and puf? ab,bi

'AB' IS NOT A VALID FIELD CODE
L21 1 L20 AND PUF? AB,BI

d

L21 ANSWER 1 OF 1 [illegible]
AN 1998:102997 CAPLUS
DN 128:[illegible]
TI Method for activating the immune [illegible] against cells associated with
papilloma viruses or their sequences
IN [illegible], Juergen; [illegible], Ingrid; ***[illegible]mann, Lutz*** ; Mueller, Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI DE 19631357 A1 [illegible] DE 1996-19631357 19960802
WO 9805790 A1 19980212 WO 1997-DE1629 19970730
W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 917586 A1 19990526 EP 1997-935500 19970730
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730

s l20 and adeno? ab,bi

'AB' IS NOT A VALID FIELD CODE
L22 1 L20 AND ADENO? AB,BI

dup rem l20

PROCESSING COMPLETED FOR L20
L23 12 DUP REM L20 (12 DUPLICATES REMOVED)

d 1- bib ab

YOU HAVE REQUESTED DATA FROM 12 ANSWERS -

CONTINUE? Y/(N):y

L23 ANSWER 1 OF 12 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN [illegible]
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR SEQUENCES THEREOF
IN [illegible]
[illegible] MARTIN
[illegible]
*** [illegible] LUTZ*** ; MUELLER
MARTIN
INA DE; DE; DE; US
PA [illegible]
STIFTUNG DES OEFFENTLICHEN RECHTS
PAS DEUTSCHES KREBSFORSCH
PAA DE
TL English; French; German
LA German
DT Patent
PIT EPA1 PUBL. OF APPLICATION WITH SEARCH REPORT
PI EP 917586 A1 19990526
DS R: AT BE CH DE DK ES FR GB IT LI NL SE
AI EP 1997-935500 A 19970730
PRAI WO 1997-DE1629 W 19970730
DE 1996-19631357 A 19960802

L23 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2001 ACS
AN 1999:708918 CAPLUS
DN 131:335792
TI Human ***papillomavirus*** E6 and E7 protein derived polypeptides with
immunogenic properties and modified biological activities for cancer
diagnosis and therapy
IN ***Gissmann, Lutz*** ; Jochmus, Ingrid
PA Deutsches Krebsforschungszentrum Stiftung des Offentlichen Rechts, Germany
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI WO 9955876 A2 19991104 WO 1999-DE1331 19990430
WO 9955876 A3 20000323
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK,
EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 19819476 C1 20000105 DE 1998-19819476 19980430
AU 9948954 A1 19991116 AU 1999-48954 19990430
PRAI DE 1998-19819476 19980430
WO 1999-DE1331 19990430
AB The invention concerns toxic or transforming polypeptide(s) with
immunogenic properties that are 10-40 amino acid fragments with altered
biol. activities of human ***papillomavirus*** (HPV16 or HPV18) E6 or
E7 proteins. The invention also relates to the DNA that codes a
polypeptide of this type, to a method for producing a polypeptide of this
type, the usage of the DNA and polypeptide for active immunization, and to
antibodies against the polypeptide.

L23 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:226319 BIOSIS
DN PREV199900226319
TI Kinetic selection of HPV 16 E6/E7-directed antisense nucleic acids:
Anti-proliferative effects on HPV 16-transformed cells.
AU Venturini, Francesca; Braspenning, Joris; Homann, Matthias; ***Gissmann,***
*** Lutz*** ; Sczakiel, Georg (1)
CS (1) Forschungsschwerpunkt Angewandte Tumorvirologie, Deutsches
Krebsforschungszentrum, Im Neuenheimer Feld 242, D-69120, Heidelberg
Germany
SO Nucleic Acids Research, (April 1, 1999) Vol. 27, No. 7, pp. 1585-1592.
ISSN: 0305-1048.
DT Article
LA English
SL English
AB The E6/E7-coding sequences of the human ***papillomavirus*** type 16
(HPV 16) were probed for kinetic accessibility in vitro by pools of
catalytic antisense RNA. Only long chain complementary RNA and very few
antisense sequences with a 3' portion complementary to a 10 nt window
within unspliced and spliced E6-coding target sequences showed fast
annealing with kass values of up to 104 M-1s-1 indicating that the

majority of E6/E7 RNA sequences are unfavourable targets for antisense
inhibitors and ribozymes. Fast annealing antisense
oligodeoxyribonucleotides directed against the [illegible] of E6/E7 inhibited
cell proliferation of HPV 16-transformed SiHa cells but not slow-annealing
antisense species. Antisense RNA [illegible] hundred nucleotides in length
also showed significant anti-proliferative activity. Biological effects of
antisense oligodeoxyribonucleotides were specific for the anti-sense
sequence, could only be found in HPV-positive but not in HPV-negative cell
lines, and were related to decreased levels of E7 protein and
E6/E7-specific transcripts. This work suggests that HPV 16 E7/E6 sequences
exhibit a low accessibility for antisense oligonucleotides. This can be
overcome, however, by exploiting the relationship between fast annealing
of antisense species and their increased efficacy in human cells

L23 ANSWER 4 OF 12 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN 46105879 INPADOC EW 199809 UW 199845
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR SEQUENCES THEREOF
IN KLEINSCHMIDT, JUERGEN; JOCHMUS, INGRID; GISSMANN, LUTZ; MUELLER, MARTIN
INS KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; ***GISSMANN LUTZ*** ; MUELLER
MARTIN
INA DE, DE, DE, US
PA DEUTSCHES KREBSFORSCHUNGSZENTRUM STIFTUNG DES OEFFTL; KLEINSCHMIDT,
JUERGEN; JOCHMUS, INGRID; GISSMANN, LUTZ; MUELLER, MARTIN
PAS DEUTSCHES KREBSFORSCH; KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN
LUTZ; MUELLER MARTIN
PAA DE, DE, DE, DE, US
TL English, French, German
LA German
DT Patent
PIT WOA1 PUBL. OF THE INT.APPL. WITH INT.SEARCH REPORT
PI WO 9805790 A1 19980212
DS RW AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W JP US
AI WO 1997-DE1629 A 19970730
PRAI DE 1996-19631357 A 19960802

L23 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2001 ACS
AN 1998:102997 CAPLUS
DN 128:150148
TI Method for activating the immune system against cells associated with
papilloma viruses or their sequences
IN Kleinschmidt, Juergen; Jochmus, Ingrid; ***Gissmann, Lutz*** ; Mueller,
Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts,
Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI DE 19631357 A1 19980205 DE 1996-19631357 19960802
WO 9805790 A1 19980212 WO 1997-DE1629 19970730
W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 917586 A1 19990526 EP 1997-935500 19970730
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A vaccine against cells infected with human ***papillomavirus*** (HPV)
comprises a ***vector*** contg. a nucleic acid which encodes a fusion
polypeptide, where the fusion polypeptide consists of a structural
papillomavirus (poly)peptide and a nontransforming (poly)peptide
encoded by an early ***papillomavirus*** gene. Thus, the open reading
frame (ORF) encoding C-terminally truncated major capsid protein L1 of HPV
16 was amplified by PCR, inserted into ***vector*** pUC19, and ligated
to an ORF fragment encoding the 1st 50 amino acids of protein E6 of HPV
16; the deletion from E6 destroys the transforming properties of the
transcript. The L1-E6 fusion gene was excised and inserted into
adeno-assocd. virus ***vector*** pUF2

L23 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2001 ACS
AN 1996:326231 CAPLUS
DN 125:8475
TI ***Papilloma*** virus-like particles contg. fusion proteins for
vaccines
IN ***Gissmann, Lutz*** ; Zhou, Jian; Mueller, Martin
PA Medigene Gesellschaft fuer Molekularbiologische Diagnostik Therapie und
Technologie Mbh, USA
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- --------------- --------
PI DE 4435907 A1 19960411 DE 1994-4435907 19941007
DE 4435907 C2 19970724
DE 4447664 C2 19990415 DE 1994-4447664 19941007
CA 2202090 AA 19960418 CA 1995-2202090 19951009
WO 9611272 A2 19960418 WO 1995-EP3974 19951009
WO 9611272 A3 19960926
W: AU, BR, CA, JP, MX, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AU 9642701 A1 19960502 AU 1996-42701 19951009
EP 809700 A1 19971203 EP 1995-934663 19951009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE
JP 11504801 T2 19990511 JP 1995-512335 19951009
US 6066324 A 20000523 US 1997-817335 19971002
PRAI DE 1994-4435907 19941007
DE 1995-19526752 19950721
WO 1995-EP3974 19951009
AB ***Papilloma*** virus-like particles are prepd. contg. recombinant
viral structural proteins L1 and/or L2 in which segments of these proteins
are deleted and may be replaced with other proteins (e.g. viral early
proteins) or protein fragments. These particles may be used in vaccines
against tumors of the reproductive tract, e.g. cervical carcinoma

L23 ANSWER 7 OF 12 MEDLINE DUPLICATE 1
AN 96211865 MEDLINE
DN 96211865
TI Expression of CD80 enhances immunogenicity of cervical carcinoma cells in
vitro
AU Kaufmann A M; ***Gissmann L*** ; Street D; Schreckenberger C; Hunter M;
Qiao L
CS Department of Obstetrics and Gynecology, Loyola University Medical Center,
Maywood, Illinois 60153, USA
SO CELLULAR IMMUNOLOGY, (1996 May 1) 169 (2) 246-51
Journal code: CQ9. ISSN: 0008-8749
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals, Cancer Journals
EM [illegible]
AB Although cervical carcinoma cells [illegible] express the human ***papillomavirus*** [illegible] proteins E6 and E7, they fail to induce an effective [illegible] response. This failure may be due to a lack of expression of costimulatory molecules, such as CD80 (B7.1). To augment the immunogenicity of cervical carcinoma cells, we transfected human ***papillomavirus*** (HPV) transformed cell lines, CaSki and HeLa, with the [illegible] expression ***vector*** pB[illegible]. Alloantigens on the tumor cells were used for the stimulation of peripheral blood lymphocytes (PBLs). Cocultivation of PBLs and tumor cells resulted in proliferation of CD4+ and CD8+ T lymphocyte subsets. CD80 expressing tumor cells induced proliferation of allogeneic PBLs two-to sixfold compared to control cell lines. Cocultivation of allogeneic PBLs with CD80 positive tumor cells for [illegible] weeks gave rise to cytotoxic T cells capable of lysing untransfected parental tumor cell lines. Our results demonstrate an immunostimulatory effect of CD80 expression on cervical cancer cells, which provides a basis for the development of a therapeutic tumor vaccine.

L23 ANSWER [illegible] OF 12 MEDLINE DUPLICATE 2
AN 96399744 MEDLINE
DN 96399744
TI The E6 variant proteins E6I-E6IV of human ***papillomavirus*** 16: expression in cell free systems and bacteria and study of their interaction with p53.
AU Shally M; Alloul N; Jackman A; Muller M; ***Gissmann L***; Sherman L
CS Department of Human Microbiology, Sackler School of Medicine, Tel Aviv University, Israel.
SO VIRUS RESEARCH, (1996 Jun) 42 (1-2) 81-96.
Journal code: X98. ISSN: 0168-1702.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM [illegible]702
EW 19970204
AB Several species of alternatively spliced mRNAs are transcribed from the E6 gene region of human ***papillomavirus*** (HPV) 16. These have the coding capacity for either the full length E6 of 151 amino acids (aa) or [illegible] truncated variants [illegible] the first step to identify the putative E6 variants and their functions, we generated cDNA corresponding to the [illegible] open reading frames (ORF) and examined their expression employing in vitro transcription translation systems and the bacterial pET system. [illegible] in vitro translation resulted in the production of all four proteins, E6 and E6I-E6IV. These proteins were also expressed as stable fusion proteins from the pET16b and pET17 [illegible] ***vector*** [illegible] Molalities of the E6 variant proteins [illegible] were consistent with their predicted sizes. The authenticity of the synthesized proteins was confirmed by immunoprecipitation [illegible] specific antibodies directed against epitopes in the N-terminal portion of E6 as well as antibodies raised against the individual variant proteins produced in E. coli. In rabbit reticulocyte lysate, however, only the full length E6 and the E6IV variant were synthesized. This could be due to inefficient translation as well as lower stability of the short variants E6I-III in reticulocyte lysate (RTL). The ability of the E6 variants to associate with p53 and target its proteolytic degradation in vitro was examined in coimmunoprecipitation assays using in vitro synthesized proteins and monoclonal antibodies to p53. Results of these assays indicated that only the full length E6 efficiently binds to and promotes the degradation of p53. The E6 variants E6I-E6IV, although able to associate with p53 at a low efficiency, were unable to target its degradation.

L23 ANSWER 9 OF 12 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:115991 BIOSIS
DN PREV199598130291
TI Antibodies to the E4, E6, and E7 proteins of human ***papillomavirus*** (HPV) type 16 in patients with HPV-associated diseases and in the normal population.
AU Mueller, Martin (1); V[illegible]; Raphael P; [illegible]; Veta; Bavinck, Jan Nico; Bouwes Bavinck; Hill, Peter M; Fisher, [illegible]; Reid, Richard; Munoz, Nubia; Schneider, Achim; Shah, Keerti V; ***Gissmann, Lutz***
CS (1) Dep. Obstetrics/Gynecology, Loyola Univ. Med. Cent., Build. 103, 2160 S-First Avenue, Maywood, IL 60153 USA
SO Journal of Investigative Dermatology (1995) Vol. 104, No. 1, pp. 138-141.
ISSN: 0022-202X.
DT Article
LA English
AB In a cross-sectional study, titers of antibodies to the E4 and E7 proteins of human ***papillomavirus*** (HPV) type 16 were measured by peptide-based enzyme-linked immunosorbent assay in 1707 sera. Sera were obtained from healthy individuals (ages 1 to 95 years), from patients with HPV-associated infection (cervical intraepithelial neoplasia and cervical cancer), and from patients who were at high risk for HPV infection (attending a sexually transmitted disease clinic or referred to a colposcopist because of an abnormal Papanicolaou smear). The prevalence of anti-E7 antibodies increased with age, although the overall prevalence in the adult population was low (0.36%) compared to the frequent detection of HPV 16 DNA in the population. This suggests that only a fraction of patients infected with HPV 16 develop an anti-E7 response. The age distribution of anti-E4 antibodies showed a different pattern, i.e., the prevalence was low in the adult population (1.14%) but exceeded 20% in children and teenagers. As the specificity of the anti-E4 reaction was supported by a highly significant association with anti-E6 positivity in children's sera (p [illegible] 0.002), it was assumed that infection with HPV 16 can occur frequently early in life. As compared to healthy controls, patients at high risk for HPV infection had a significantly higher frequency (p lt 0.001) of antibodies to the HPV 16 E4 protein (but not to the E6 or the E7 protein) in their sera. Therefore, we conclude that in adults E4-specific antibodies may be a marker for virus replication.

L23 ANSWER 10 OF 12 MEDLINE DUPLICATE 3
AN 94047301 MEDLINE
DN 94047301
TI Efficient self-assembly of human ***papillomavirus*** type 16 L1 and L1-L2 into virus-like particles.
AU Kirnbauer R; Taub J; Greenstone H; Roden R; Durst M; ***Gissmann L***; Lowy D R; Schiller J T

CS Laboratory of Cellular Oncology, National Cancer Institute, Bethesda,
Maryland 20892
SO JOURNAL OF VIROLOGY, (1993 Dec) 67 (12) 6929-36.
Journal code KCV. ISSN 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199402
AB The L1 genes of two human ***papillomavirus*** type 16 (HPV16)
isolates derived from condylomata acuminata were used to express the L1
major capsid protein in insect cells via recombinant baculoviruses. Both
L1 major capsid proteins self assembled into virus-like particles (VLP)
with high efficiency and could be purified in preparative amounts on
density gradients. The yield of VLP was 3 orders of magnitude higher than
what has been obtained previously, using L1 derived from the prototype
HPV16. DNA sequence comparison identified a single nonconserved amino acid
change to be responsible for the inefficient self-assembly of the
prototype L1. VLP were also obtained by expressing L1 of HPV6 HPV11, and
cottontail rabbit ***papillomavirus*** indicating that L1 from a
variety of ***papillomaviruses*** has the intrinsic capacity to
self assemble into VLP. Coexpression of HPV16 L1 plus L2 by using a
baculovirus double-expression ***vector*** also resulted in efficient
self-assembly of VLP, and the average particle yield increased about
fourfold in comparison to when L1 only was expressed.
Coimmunoprecipitation of L1 and L2 and cosedimentation of the two proteins
in a sucrose gradient demonstrated that L2 was incorporated into the
particles. The ability to generate preparative amounts of HPV16 L1 and
L1-L2 VLP may have implications for the development of a serological assay
to detect anti-HPV16 virion immune responses to conformational epitopes
and for immunoprophylaxis against HPV16 infection.

L23 ANSWER 11 OF 12 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. DUPLICATE 4
AN 82102914 EMBASE
DN 1982102914
TI Molecular cloning and partial nucleotide sequence of human
papillomavirus type 1a DNA
AU Clad A.; ***Gissmann L.***; Meier B.; et al.
CS Inst. Virol., Zent. Hyg., Univ. Freiburg, 7800 Freiburg, Germany
SO Virology, (1982) 118 1 (254-259).
CODEN: VIRLAX
CY United States
DT Journal
FS 047 Virology
016 Cancer
029 Clinical Biochemistry
022 Human Genetics
LA English
AB ***Papillomaviruses*** contain a ds DNA genome of about 5 × 10^6. They
belong in the papovavirus group and induce epithelial proliferation in a
variety of animal species and in man. To date, eight types of
papillomaviruses have been identified in different human
papillomas, some of which show an increased tendency for malignant
conversion. Due to the inability to propagate ***papillomaviruses***
in tissue culture, almost nothing is known about their genetic
organization and gene expression. The use of recombinant DNA techniques
now renders it possible to study in detail the molecular biology of
papillomaviruses. Here we report the molecular cloning of the DNA
of human ***papillomavirus*** type 1a (HPV1a) in Escherichia coli
using pBR 322 as ***vector*** and the nucleotide sequence of part of
the HPV1a genome. The region of 1819 base pairs contains one of two pairs
of short inverted repetitive sequences detected earlier by electron
microscopic studies. Within the DNA sequence, three potential coding
regions of only one orientation have been observed which allows prediction
of the direction of transcription in this part of the HPV1a genome.

L23 ANSWER 12 OF 12 MEDLINE DUPLICATE 5
AN 82101130 MEDLINE
DN 82101130
TI Molecular cloning of viral DNA from human genital warts.
AU de Villiers E M; ***Gissmann L***; zur Hausen H
SO JOURNAL OF VIROLOGY, (1981 Dec) 40 (3) 932-5.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198205
AB The DNA of human ***papilloma*** virus type 6 (HPV 6) has been cloned
in Escherichia coli K-12 by using pBR322 as ***vector***. The DNA was
cloned at the BamHI and EcoRI cleavage sites. This DNA was mapped by
employing further restriction endonucleases and by terminal labeling. No
major differences were noted as compared to HPV 6 DNA originating directly
from a genital wart. The existence of at least two HPV 6 subtypes (HPV 6a
and 6b) became apparent.

=> e mueller martin au

E1	2	MUELLER MARSCHHAUSEN U/AU
E2	1	MUELLER MARTHA/AU
E3	728 -->	MUELLER MARTIN/AU
E4	1	MUELLER MARTIN DIPL BIOL DR/AU
E5	74	MUELLER MARTIN DIPL ING/AU
E6	1	MUELLER MARTIN DIPL PHYS DR/AU
E7	18	MUELLER MARTIN DR/AU
E8	4	MUELLER MARTIN DR ING/AU
E9	1	MUELLER MARTIN E/AU
E10	1	MUELLER MARTIN ING GRAD/AU
E11	56	MUELLER MARTIN J/AU
E12	2	MUELLER MARTIN L/AU

=> s e3-e12

L24 880 ("MUELLER MARTIN"/AU OR "MUELLER MARTIN DIPL BIOL DR"/AU OR
"MUELLER MARTIN DIPL ING"/AU OR "MUELLER MARTIN DIPL PHYS DR"/AU
OR "MUELLER MARTIN DR"/AU OR "MUELLER MARTIN DR ING"/AU OR
"MUELLER MARTIN E"/AU OR "MUELLER MARTIN ING GRAD"/AU OR "MUELLE
R MARTIN J"/AU OR "MUELLER MARTIN L"/AU)

=> e mueller martin l au

E1	1	MUELLER MARTIN ING GRAD/AU
E2	56	MUELLER MARTIN J/AU
E3	2 -->	MUELLER MARTIN L/AU
E4	2	MUELLER MARTIN M/AU
E5	1	MUELLER MARTIN M DR/AU
E6	3	MUELLER MARTIN R A/AU
E7	8	MUELLER MARTIN S/AU
E8	43	MUELLER MARTINA/AU
E9	1	MUELLER MARTINE/AU
E10	1	MUELLER MARTTHIAS/AU
E11	1	MUELLER MARUSHEL/AU
E12	2	MUELLER MARVIN C/AU

=> s e4-e7

L25 14 ("MUELLER MARTIN M"/AU OR "MUELLER MARTIN M DR"/AU OR "MUELLER
MARTIN R A"/AU OR "MUELLER MARTIN S"/AU)

s l24 or l25

L26 894 L24 OR L25

s l26 and papilloma? ab bi

'AB' IS NOT A VALID FIELD CODE
L27 [illegible] L26 AND PAPILLOMA? [illegible]

s l27 and vector? ab bi

'AB' IS NOT A VALID FIELD CODE
L28 5 L27 AND VECTOR? AB BI

dup rem l28

PROCESSING COMPLETED FOR L28
L29 5 DUP REM L28 (0 DUPLICATES REMOVED)

d 1- bib ab

YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L29 ANSWER 1 OF 5 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN 27606979 INPADOC ED 19992[illegible] UW 19992[illegible]
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR SEQUENCES THEREOF
IN KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN LUTZ; MUELLER MARTIN
INS KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN LUTZ; ***MUELLER*** ***MARTIN***
INA DE; DE; DE; US
PA DEUTSCHES KREBSFORSCHUNGSZENTRUM STIFTUNG DES OEFFENTLICHEN RECHTS
PAS DEUTSCHES KREBSFORSCH
PAA DE
TL English; French; German
LA German
DT Patent
PIT EPA1 PUBL OF APPLICATION WITH SEARCH REPORT
PI EP 917586 A1 19990526
DS R AT BE CH DE DK ES FR GB IT LI NL SE
AI EP 1997-935500 A 19970730
PRAI WO 1997-DE1629 W 19970730
DE 1996-19631357 A 19960802

L29 ANSWER 2 OF 5 INPADOC COPYRIGHT 2001 EPO

LEVEL 1
AN 46105879 INPADOC EW 199809 UW 199843
TI ***VECTOR*** FOR ACTIVATING THE IMMUNE SYSTEM AGAINST CELLS
ASSOCIATED TO ***PAPILLOMA*** VIRUSES OR SEQUENCES THEREOF
IN KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN LUTZ; MUELLER MARTIN
INS KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN LUTZ; ***MUELLER***
*** MARTIN***
INA DE; DE; DE; US
PA DEUTSCHES KREBSFORSCHUNGSZENTRUM STIFTUNG DES OEFFE; KLEINSCHMIDT,
JUERGEN; JOCHMUS, INGRID; GISSMANN, LUTZ; MUELLER, MARTIN
PAS DEUTSCHES KREBSFORSCH; KLEINSCHMIDT JUERGEN; JOCHMUS INGRID; GISSMANN
LUTZ; MUELLER MARTIN
PAA DE; DE; DE; DE; US
TL English; French; German
LA German
DT Patent
PIT WOA1 PUBL OF THE INT APPL WITH INT SEARCH REPORT
PI WO 9805790 A1 19980212
DS RW AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W JP US
AI WO 1997-DE1629 A 19970730
PRAI DE 1996-19631357 A 19960802

L29 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2001 ACS
AN 1998:102997 CAPLUS
DN 128:153148
TI Method for activating the immune system against cells associated with
papilloma viruses or their sequences
IN Kleinschmidt, Juergen; Jochmus, Ingrid; Gissmann, Lutz; ***Mueller*** ***
*** Martin***
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts,
Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19631357	A1	19980205	DE 1996-19631357	19960802
WO 9805790	A1	19980212	WO 1997-DE1629	19970730

W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 917586	A1	19990526	EP 1997-935500	19970730

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A vaccine against cells infected with human ***papillomavirus*** (HPV)
comprises a ***vector*** contg. a nucleic acid which encodes a fusion
polypeptide, where the fusion polypeptide consists of a structural
papillomavirus (poly)peptide and a nontransforming (poly)peptide
encoded by an early ***papillomavirus*** gene. Thus, the open reading
frame (ORF) encoding C-terminally truncated major capsid protein L1 of HPV
16 was amplified by PCR, inserted into ***vector*** pUC19, and ligated
to an ORF fragment encoding the 1st 50 amino acids of protein E6 of HPV
16; the deletion from E6 destroys the transforming properties of the
transcript. The L1-E6 fusion gene was excised and inserted into
adeno-assocd. virus ***vector*** pUF2.

L29 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
AN 1996:326231 CAPLUS
DN 125:8475
TI ***Papilloma*** virus-like particles containing fusion proteins for
vaccines
IN Gissmann, Lutz; Zhou, Jian; ***Mueller, Martin***
PA Medigene Gesellschaft fuer Molekularbiologische Diagnostik Therapie und
Technologie M.B.H., USA
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 4435907	A1	19960411	DE 1994-4435907	19941007
DE 4435907	C2	19970724		
DE 4447664	C2	19990415	DE 1994-4447664	19941007
CA 2202090	AA	19960418	CA 1995-2202090	19951009
WO 9611272	A2	19960418	WO 1995-EP3974	19951009
WO 9611272	A3	19960926		

W: AU, BR, CA, JP, MX, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9642701	A1	19960502	AU 1996-42701	19951009
EP 809700	A1	19971203	EP 1995-934663	19951009

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE

JP 11504801	T2	19990511	JP 1995-512335	19951009
US 6066324	A	20000523	US 1997-817335	19971002

PRAI DE 1994-335807 19941007
DE 1995-19526752 19950721
WO 1995-EP3974 19951007
AB ***papillomavirus*** virus-like particles are prepd. comprg. recombinant
viral structural proteins L1 and or L2 in which segments of these proteins
are deleted and or replaced with other proteins (e.g. viral early
proteins) or protein fragments. These particles may be used in vaccines
against tumors of the reproductive tract, e.g. cervical carcinoma

L29 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:215991 BIOSIS
DN PREV199598130291
TI Antibodies to the E4, E6, and E7 proteins of human ***papillomavirus***
(HPV) type 16 in patients with HPV-associated diseases and in the normal
population
AU ***Muller, Martin*** Viscidi, Raphael P. Erikson, Vera Bavinck,
Jan Nico Bouwes, H.P. Peter M. Fisher, Susan G. Reid, Richard
Munoz
Nadim, Schneider, Adam, Shah, Keerti V. Gissmann, Lutz
CS (1) Dep. Obstetrics Gynecology, Loyola Univ. Med. Cent., Build
105, 2160
S. First Avenue, Maywood, IL 60153, USA
SO Journal of Investigative Dermatology, (1995) Vol. 104, No. 1, pp.
138-141
ISSN: 0022-202X
DT Article
LA English
AB In a cross-sectional study, titers of antibodies to the E4 and E7
proteins
of human ***papillomavirus*** (HPV) type 16 were measured
by
peptide-based enzyme-linked immunosorbent assay in 1707 sera.
Sera were
obtained from healthy individuals (ages 1 to 95 years), from
patients with
HPV-associated infection (cervical intraepithelial neoplasia and
cervical
cancer), and from patients who were at high risk for HPV infection
(attending a sexually transmitted disease clinic or referred to a
colposcopist because of an abnormal Papanicolaou smear). The
prevalence of
anti-E7 antibodies increased with age, although the overall
prevalence in
the adult population was low (10.36%) compared to the frequent
detection
of HPV 16 DNA in the population. This suggests that only a
fraction of
patients infected with HPV 16 develop an anti-E7 response. The
age
distribution of anti-E4 antibodies showed a different pattern, i.e.,
the
prevalence was low in the adult population (1.14%) but exceeded
20% in
children and teenagers. As the specificity of the anti-E4 reaction
was
supported by a highly significant association with anti-E7 positivity
in
children's sera (p = 0.0002), it was assumed that infection with HPV
16 can
occur frequently early in life. Compared to healthy controls,
patients
at high risk for HPV infection had a significantly higher frequency
(p lt
0.001) of antibodies to the HPV 16 E4 protein (but not to the E6 or
the E7
protein) in their sera. These data may conclude that in adults
E4-specific
antibodies may be a marker for virus replication

e muller martin ab,bi

EXPAND COMMAND IS NOT AVAILABLE FOR THIS FIELD
AB
EXPAND COMMAND IS NOT AVAILABLE FOR THIS FIELD
AB
'AB' IS NOT A VALID FIELD CODE FOR FILE
'BIOSIS'
E1 5479 MULLER BI
E2 0 --- MULLER MARTIN AB
E3 0 --- MULLER MARTIN BI
E4 1 MULLER2 AB
E5 1 MULLER2 BI
E6 1 MULLER3 AB
E7 1 MULLER3 BI
E8 4 MULLERA BI
E9 5 MULLERAF BI
E10 1 MULLERALIS BI
E11 2 MULLERAN BI
The indicated field code is not an allowable EXPAND term in this
file. To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

e muller martin au

E1 1 MULLER MARTHINUS AU
E2 5 MULLER MARTHIUS T AU
E3 169 --- MULLER MARTIN AU
E4 7 MULLER MARTIN DIPL ING AU
E5 3 MULLER MARTIN E AU
E6 13 MULLER MARTIN J AU
E7 2 MULLER MARTIN R A AU
E8 14 MULLER MARTINA AU
E9 3 MULLER MARTINE AU
E10 1 MULLER MARWITZ VOLKER AU
E11 1 MULLER MARY E AU
E12 1 MULLER MARY MICHELLE AU

s e3-e7

L30 191 ("MULLER MARTIN" AU OR "MULLER MARTIN DIPL ING" AU OR "MULLER
MARTIN E" AU OR "MULLER MARTIN J" AU OR "MULLER MARTIN R A" AU OR
"MULLER MARTINA" AU)

s l30 and papilloma? ab,bi

'AB' IS NOT A VALID FIELD CODE
L31 33 L30 AND PAPILLOMA? AB,BI

s l31 and vector# ab,bi

'AB' IS NOT A VALID FIELD CODE
L32 2 L31 AND VECTOR# AB,BI

dup rem l32

PROCESSING COMPLETED FOR L32
L33 1 DUP REM L32 (1 DUPLICATE REMOVED)

d

L33 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2001 BIOSIS
DUPLICATE 1
AN 1996:379848 BIOSIS
DN PREV199699102204
TI The E6 variant proteins E6I-E6IV of human
papillomavirus 16
Expression in cell free systems and bacteria and study of their
interaction with p53
AU Shally, Maya; Alloul, Natalie; Jackman, Anna; ***Muller,
Martin*** ;
Sherman, Lutz Gissmann, Adn Levana (1)
CS (1) Dep. Human Microbiol., Sackler Sch. Med., Tel Aviv
University, Tel
Aviv 69978, Israel
SO Virus Research, (1996) Vol. 42, No. 1-2, pp. 81-96
ISSN: 0168-1702
DT Article
LA English

d ab

L33 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2001 BIOSIS
DUPLICATE 1
AB Several species of alternatively spliced mRNAs are transcribed
from the E6
gene region of human ***papillomavirus*** (HPV) 16. These
have the
coding capacity for either the full length E6 of 151 amino acids (aa)
or
four truncated variants, E6I-E6IV, of 43-64 aa. As the first step to

identify the putative E6 variants and their functions, we generated cDNAs
corresponding to the various E6 open reading frames (ORFs) and examined
their expression employing in vitro transcription translation systems and
the bacterial pET system. In wheat germ extract, in vitro translation resulted in the production of all five proteins, E6 and E6I-E6IV. These
proteins [illegible] pET16b and
pET17 times in ***vector*** in Escherichia coli. Mobilities of the E6
variant proteins on SDS acrylamide gels were consistent with their predicted sizes. The authenticity of the synthesized proteins was confirmed by immunoprecipitation with specific antibodies directed against
epitopes in the [illegible] portion of E6 as well as antibodies raised
against the individual variant proteins produced in E. coli. In rabbit reticulocyte lysate, however, only the full length E6 and the E6IV variant
were synthesized. This could be due to inefficient translation as well as
lower stability of the short variants, E6I-III, in reticulocyte lysate (RTL). The ability of the E6 variants to associate with p53 and target its
proteolytic degradation in vitro was examined in coimmunoprecipitation
assays using in vitro synthesized proteins and monoclonal antibodies to
p53. Results of these assays indicated that only the full length E6 efficiently binds to and promotes the degradation of p53. The E6 variants
E6I-E6IV, although able to associate with p53 at a low efficiency, were
unable to target its degradation.

d his

(FILE 'HOME' ENTERED AT 17:35:07 ON 23 JAN 2001)

FILE 'MEDLINE' ENTERED AT 17:35:[illegible] ON 23 JAN 2001

L1 413 S PAPILLOMA? AND VACCINE# AB,BI
L2 967 S ADENO ASSOCIATED AB,BI
L3 15 S L2 AND VACCINE# AB,BI
L4 1 S L1 AND L3

FILE [illegible] ENTERED AT 17:38:59 ON 23 JAN 2001

L5 9 S L4
L6 6 DUP REM L5 (3 DUPLICATES REMOVED)
L7 114 S L5
L8 9 S L7 AND PAPILLOMA? AB,BI
L9 6 DUP REM L8 (3 DUPLICATES REMOVED)
E KLEINSHMIDT JURGEN AU
E KLEINSCHMIDT JURGEN AU
L10 30 S E2-E3
L11 1 S L10 AND PAPILLOMA? AB,BI
E JOCHMUS INGRID AU
L12 79 S E2-E4
L13 [illegible] S L12 AND PAPILLOMA? AB,BI
L14 11 S L13 AND VACCINE# AB,BI
L15 7 DUP REM L14 (4 DUPLICATES REMOVED)
L16 6 S L13 AND VECTOR# AB,BI
L17 [illegible] DUP REM L16 ([illegible] DUPLICATES REMOVED)
E GISSMANN LUTZ AU
L18 626 S E2-E6
L19 547 S L18 AND PAPILLOMA? AB,BI
L20 24 S L19 AND [illegible] AB,BI
L21 1 S L20 AND PUF? AB,BI
L22 1 S L20 AND ADENO? AB,BI
L23 12 DUP REM L20 (12 DUPLICATES REMOVED)
E [illegible] AU
L24 880 S E3-E12
E MUELLER MARTIN L AU
L25 14 S E4-E7
L26 894 S L24 OR L25
L27 86 S L26 AND PAPILLOMA? AB,BI
L28 5 S L27 AND VECTOR# AB,BI
L29 5 DUP REM L28 (0 DUPLICATES REMOVED)
E MULLER MARTIN AB,BI
E MULLER MARTIN AU
L30 191 S E3-E7
L31 33 S L30 AND PAPILLOMA? AB,BI
L32 2 S L31 AND VECTOR# AB,BI
L33 1 DUP REM L32 (1 DUPLICATE REMOVED)

file medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	181.07	186.07

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-10.00	-10.00

FILE 'MEDLINE' ENTERED AT 17:54:43 ON 23 JAN 2001

FILE LAST UPDATED: 27 OCT 2000 (20001027/UP). FILE COVERS 1960 TO DATE.

MEDLINE has been updated with the 2000 ST, CT and MN fields incorporate the MeSH 2000 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965.
Enter HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the
Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
SUBSTANCE IDENTIFICATION.

MEDLINE RELOAD: [illegible] AFTER THE
ANNUAL RELOAD [illegible]
COMPLETED [illegible] THE RELOAD
IS COMPLETED AND
[illegible] DETAILS WILL BE FOUND IN HELP RELOAD

s papilloma? and fusion and vaccine# ab,bi

21139 PAPILLOMA?
80359 FUSION
[illegible] VACCINE# BI
5453647 AB FA
[illegible] VACCINE# AB
(VACCINE# BI (L) AB FA)
88249 VACCINE# BI
L34 3 PAPILLOMA? AND FUSION AND VACCINE# AB,BI

s l34 and vector# ab,bi

67027 VECTOR# BI
5453647 AB FA
42987 VECTOR# AB
(VECTOR# BI (L) AB FA)
67027 VECTOR# BI
L35 6 L34 AND VECTOR# AB,BI

d 1- bib ab

YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L35 ANSWER 1 OF 6 MEDLINE
AN 2000148983 MEDLINE
DN 20148983
TI Recombinant adeno associated virus expressing human ***papillomavirus***
type 16 L7 peptide DNA fused with heat shock protein DNA as a potential
vaccine for cervical cancer.
AU Liu D W; [illegible]; Tsang Y L; Ding Y A; Sytwu H K; Xiao X; Chen S L
CS Department of Microbiology and Immunology, Taipei, Taiwan, Republic of
China.
SO JOURNAL OF VIROLOGY, (2000 Mar) 74 (6) 2888-94.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals; Cancer Journals
EM 200006
EW 20000602
AB In this study we explore the potential of ***vaccine*** for human ***papillomavirus*** (HPV)-induced tumors, using heat shock protein as an adjuvant, a peptide ***vaccine*** for safety, and adeno-associated virus (AAV) as a gene delivery ***vector***. [illegible] ***vaccine*** was devised by constructing a chimeric gene which contained HPV type 16 E7 cytotoxic T-lymphocyte (CTL) epitope DNA (M. C. Feltkamp, H. L. Smits, M. P. Vierboom, R. P. Minnaar, B. M. de Jongh, J. W. Drijfhout, J. ter Schegget, C. J. Melief, and W. M. Kast, Eur. J. Immunol. 23:2242-2249, 1993) fused with the heat shock protein gene [illegible] ***vaccine*** delivered by AAV. The results demonstrated that [illegible] ***vaccine*** can eliminate tumor cells in syngeneic animals and induce CD4 and CD8-dependent CTL activity in vivo. Moreover, studies with knockout mice with distinct T cell deficiencies confirm that CTL-induced tumor protection is CD4 and CD8 dependent. Taken together, the evidence indicates that this chimeric gene delivered by AAV has potential as a cervical cancer ***vaccine***.

L35 ANSWER 2 OF 6 MEDLINE
AN 97166568 MEDLINE
DN 97166568
TI Construction and characterisation of a recombinant vaccinia virus expressing human ***papillomavirus*** proteins for immunotherapy of cervical cancer.
AU Boursnell M E; Rutherford E; Hickling J K; Rollinson E A; Munro A J; Rolley N; McLean C S; Borysiewicz L K; Vousden K; Inglis S C
CS Cantab Pharmaceuticals Research Ltd., Cambridge, UK.
SO VACCINE, (1996 Nov) 14 (16) 1485-94.
Journal code: X60. ISSN: 0264-410X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199706
EW 19970601
AB The presence and consistent expression of the genes encoding the human ***papillomavirus*** (HPV) E6 and E7 proteins in the great majority of cervical tumours presents the opportunity for an immunotherapeutic approach for control of the disease. This report describes the construction and [illegible] of a recombinant vaccinia virus designed to express modified forms of the E6 and E7 proteins from HPV16 and HPV18, the viruses most commonly associated with cervical cancer. The recombinant virus (designated TA-HPV) [illegible] ***vaccine*** strain of vaccinia, and [illegible] products [illegible] in mice indicated that the recombinant virus was less neurovirulent than the parental virus and [illegible] CTL response. This pre-clinical evaluation has provided [illegible] the initiation of human trials in cervical cancer patients.

L35 ANSWER 3 OF 6 MEDLINE
AN 96100819 MEDLINE
DN 96100819
TI Immunization of mice by oral colonization with live recombinant commensal streptococci.
AU Oggioni M R; Manganelli R; Contorni M; Tommasino M; Pozzi G
CS Dipartimento di Biologia Molecolare, Universita di Siena, Italy.
SO VACCINE, (1995) 13 (8) 775-9.
Journal code: X60. ISSN: 0264-410X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199602
AB To test the use of recombinant streptococci as live ***vaccine*** ***vectors***, colonization and immunization experiments were performed with Streptococcus gordonii expressing heterologous cell surface antigens. Three isogenic strains of S. gordonii were used: a wild type, a recombinant expressing the M6 protein of Streptococcus pyogenes, and a recombinant expressing the E7 protein of human ***papillomavirus*** type 16 as a ***fusion*** with the M6 protein. A single dose of live bacteria was used to inoculate outbred mice, and it was found that (i) mice were stably colonized by a single intranasal/oral inoculum of S. gordonii; (ii) recombinant strains were equally effective as wild type in colonizing mice; (iii) two months after the inoculum, oral pharyngeal swabs of 83.3% of animals were still positive for isolation of S. gordonii; (iv) recombinant S. gordonii isolated from colonized mice were [illegible] positive for expression of the heterologous antigens; (v) live bacteria induced a systemic immune response, since sera of mice colonized with recombinant S. gordonii contained IgG specific for the heterologous cell surface antigens; (vi) the immune response depended upon the effective colonization by live bacteria, since killed bacteria did not induce such a response.

L35 ANSWER 4 OF 6 MEDLINE
AN 92225607 MEDLINE
DN 92225607
TI [illegible] and expression of heterologous antigens on the surface of streptococci.
AU Pozzi G; Contorni M; Oggioni M R; Manganelli R; Tommasino M; Cavalieri F; Fischetti V A
CS Dipartimento di Biologia Molecolare, Universita di Siena, Italy.
NC AI11822 (NIAID)
SO INFECTION AND IMMUNITY, (1992 May) 60 (5) 1902-7.
Journal code: GO7. ISSN: 0019-9567.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199207
AB We have developed a system in which a foreign antigen replaces nearly all of the surface-exposed region of the fibrillar M protein from Streptococcus pyogenes and is fused to the C-terminal attachment motif of the M molecule. The ***fusion*** protein is thus expressed on the surface of Streptococcus gordonii, a commensal organism of the oral cavity. The antigen chosen to be expressed within the context of the M6 molecule was the E7 protein (98 amino acids) of human ***papillomavirus*** type 16. Stable recombinant streptococci were obtained by integrating genetic constructs into the chromosome, exploiting in vivo homologous recombination. The M6-E7 ***fusion*** protein expressed on the S. gordonii surface was shown to be immunogenic in mice. This is the first step in the construction of recombinant live ***vaccines*** in which nonpathogenic streptococci as well as other gram-positive bacteria may be used as ***vectors*** to deliver heterologous antigens to the immune system.

L35 ANSWER 5 OF 6 MEDLINE
AN 91196248 MEDLINE
DN 91196248
TI The open reading frame L2 of cottontail rabbit

papillomavirus
contains antibody inducing neutralizing epitopes
AU Christensen [illegible]
CS Department of Pathology, Milton S. Hershey [illegible]
Hershey
Pennsylvania 17033
NC CA47622 (NCI)
SO VIROLOGY, (1991 Apr) 181 (2) 572-9.
Journal code: XEA. ISSN: 0042-6822.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199107
AB Polyclonal antisera were generated against bacterially derived
fusion proteins [illegible] the
capsid
proteins of cottontail rabbit ***papillomavirus*** (CRPV). The
carboxy-terminal two thirds of CRPV L1 and the carboxy-terminal
half of
CRPV L2 were cloned into a bacterial expression ***vector***
and
induced proteins were used as antigen and immunogen. The
polyclonal
antisera were tested in a series of immunological assays, including
ELISA,
Western blot, and neutralization. [illegible] demonstrated
that the
polyclonal antisera raised against expressed L1 proteins reacted
strongly
to disrupted CRPV virion antigen and weakly both to intact CRPV
virion and
disrupted BPV-1 virion. Anti-CRPV L2 antisera reacted strongly
only to
intact and disrupted CRPV virion antigen. Viral capsid proteins of
CRPV
were detected in Western blots of HPV-11, BPV-1, and CRPV
virus particles
by these polyclonal antisera. The anti-L1 sera recognized the major
capsid
protein (60 kDa) and the anti-L2 sera identified a 76-kDa viral
protein of
CRPV. Only the antisera generated against expressed L2
neutralized CRPV.
The neutralizing titer of the anti-L2 sera, however, was several
orders of
magnitude lower than the titer of a neutralizing polyclonal
antiserum that
was generated by immunizations with intact CRPV virions.

L35 ANSWER [illegible] MEDLINE
AN [illegible] MEDLINE
DN [illegible]
TI An antigen chimera of poliovirus induces antibodies against
human
papillomavirus type 16.
AU Jenkins O; Cason J; Burke K L; Lunney D; Gillen A; Patel D;
McCance D J;
Almond J W
CS [illegible] University of Reading, United Kingdom.
SO JOURNAL OF VIROLOGY, (1990 Mar) 64 (3) 1201-6.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199005
AB It has been established that the surface of poliovirus type 1 can be
[illegible] modified to incorporate antigenic domains from other
poliovirus serotypes and from unrelated viruses. The fact that the
modified (chimeric) viruses exhibit dual antigenicity and
immunogenicity
[illegible] possibility of using the Sabin ***vaccine***

strain of poliovirus type 1 as a ***vector*** for the presentation
of
antigenic domains from human ***papillomavirus*** type 16
(HPV-16), a
virus associated with the development of cervical carcinoma. We
report
here the construction and characterization of a chimeric poliovirus
containing a 16-residue sequence derived from the major capsid
protein
(L1) of HPV-16. This virus chimera stimulated the production in
rabbits of
antibodies which recognized the HPV-16-derived peptide and an
L1
fusion protein synthesized in Escherichia coli and
detected HPV-16
in human biopsy material by immunoperoxidase staining. The
possibility
that poliovirus-HPV chimeras could be used as ***vaccines***
against
HPV-16 is discussed.

=> file medline embase biosis inpadoc caplus

COST IN U.S. DOLLARS		SINCE FILE	TOTAL
		ENTRY	SESSION
FULL ESTIMATED COST		2.16	188.17

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		SINCE FILE	TOTAL
		ENTRY	SESSION
CA SUBSCRIBER PRICE		0.00	-10.00

FILE 'MEDLINE' ENTERED AT 17:56:27 ON 23 JAN 2001

FILE 'EMBASE' ENTERED AT 17:56:27 ON 23 JAN 2001

FILE 'BIOSIS' ENTERED AT 17:56:27 ON 23 JAN 2001

FILE 'INPADOC' ENTERED AT 17:56:27 ON 23 JAN 2001

FILE 'CAPLUS' ENTERED AT 17:56:27 ON 23 JAN 2001

=> d his

(FILE 'HOME' ENTERED AT 17:[illegible] ON 23 JAN 2001)

FILE 'MEDLINE' ENTERED AT 17:[illegible] ON 23 JAN 2001
L1 [illegible] S PAPILLOMA? AND VACCINE# AB,BI
L2 [illegible] S L1 AND [illegible] ASSOCIATED AB,BI
L3 15 S L2 AND VACCINE# AB,BI
L4 1 S L1 AND L3

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'
ENTERED AT 17:38:59 ON 23
JAN 2001
L5 9 S L4
L6 6 DUP REM L5 (3 DUPLICATES REMOVED)
L7 114 S L3
L8 9 S L7 AND PAPILLOMA? AB,BI
L9 6 DUP REM L8 (3 DUPLICATES REMOVED)
E KLEINSHMIDT JURGEN AU
E KLEINSCHMIDT JURGEN AU
L10 30 S E3-E4
L11 1 S L10 AND PAPILLOMA? AB,BI
E JOCHMUS INGRID AU
L12 79 S E2-E4
L13 53 S L12 AND PAPILLOMA? AB,BI
L14 11 S L13 AND VACCINE# AB,BI
L15 7 DUP REM L14 (4 DUPLICATES REMOVED)
L16 6 S L13 AND VECTOR# AB,BI
L17 6 DUP REM L16 (0 DUPLICATES REMOVED)
E GISSMANN LUTZ AU
L18 626 S E2-E6
L19 547 S L18 AND PAPILLOMA? AB,BI
L20 24 S L19 AND VECTOR# AB,BI
L21 1 S L20 AND PUF? AB,BI
L22 [illegible] S L20 AND [illegible] AB,BI
L23 12 DUP REM L20 (12 DUPLICATES REMOVED)
E MUELLER MARTIN AU
L24 880 S E3-E12
E MUELLER MARTIN L AU
L25 14 S E4-E7
L26 894 S L24 OR L25
L27 [illegible] S L26 AND PAPILLOMA? AB,BI
L28 5 S L27 AND VECTOR# AB,BI
L29 [illegible] DUP REM L28 ([illegible] DUPLICATES REMOVED)
E MULLER MARTIN AB,BI
E MULLER MARTIN AU
L30 191 S E3-E7

L31 32 S L26 AND PAPILLOMA? AB,BI
L32 2 S L31 AND VECTOR? AB,BI
L33 1 DUP REM L32 (1 DUPLICATE REMOVED)

FILE MEDLINE [illegible] 22 JAN 2001
L34 [illegible]
VACCINE# AB,BI
L3[illegible] [illegible] L34 AND VECTOR? AB,BI

FILE 'MEDLINE' [illegible]
ENTERED [illegible]
JAN 2001

s l35

'AB' IS NOT A VALID FIELD CODE
L36 52 L35

dup rem l36

PROCESSING COMPLETED FOR L36
L37 41 DUP REM L36 (11 DUPLICATES REMOVED)

s l36 and adeno? ab,bi

'AB' IS NOT A VALID FIELD CODE
L38 9 L36 AND ADENO? AB,BI

dup rem l38

PROCESSING COMPLETED FOR L38
L39 7 DUP REM L38 (2 DUPLICATES REMOVED)

d 1- bib ab

YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L39 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 2000:814317 CAPLUS
DN 133:361907
TI Compositions and methods for identifying antigens which elicit an immune
response
IN Chen, Su-Yi; You, Zhaoying
PA Wake Forest University, USA
SO PCT Int. Appl., 164 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000067761	A1	20001116	WO 2000-US12177	20000505

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, [illegible]
[illegible]
[illegible]
VN, YU, ZA
RW: [illegible]
RW: GH, GM, KE, LS, MW, [illegible] AT,
BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-132750 19990506
US 1999-132752 19990506
AB This invention relates to an expression ***vector*** wherein said
expression ***vector*** comprises a polynucleotide promoter sequence,
a polynucleotide encoding a signal sequence, a polynucleotide encoding an
antigen protein or peptide, a polynucleotide encoding a cell binding
element, and a polynucleotide polyadenylation sequence all operatively
linked. More particularly, it relates to the method of eliciting an
immune response directed against an antigen in a mammal comprising the
steps of introducing the expression ***vector*** into a cell,
expressing the ***vector*** to produce an antigen under conditions
wherein the antigen is secreted from the cell, endocytosing the secreted
antigen into the cell, processing the antigen, and presenting fragments to
a receptor to elicit a T-cell response. In addn., this invention relates
to a ***vaccine*** and a method of use. The invention also relates to
the method of identifying MHC-II restricted epitopes.
RE.CNT 9
RE
(1) Berger; US 5587455 A 1996 CAPLUS
(2) Carson; US 5679647 A 1997 CAPLUS
(3) Commonwealth Scientific And Industrial Research Organisation; WO 9700321 A1
1997 CAPLUS
(4) Dranoff; US 5637483 A 1997 CAPLUS
(5) Johnston; US 5703057 A 1997 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 2 OF 7 MEDLINE DUPLICATE 1
AN 2000148983 MEDLINE
DN 20148983
TI Recombinant ***adeno*** -associated virus expressing human
papillomavirus type 16 E7 peptide DNA fused with heat shock
protein DNA as a potential ***vaccine*** for cervical cancer.
AU Liu D W; Tsao Y P; Kung J T; Ding Y A; Sytwu H K; Xiao X; Chen S L
CS Department of Microbiology and Immunology, Taipei, Taiwan, Republic of
China.
SO [illegible] (2000 Mar) [illegible]
Journal code: K[illegible]
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 200006
EW 20000602
AB In this study, we explore a potential ***vaccine*** for human
papillomavirus (HPV)-induced tumors using heat shock protein as
an adjuvant, a peptide ***vaccine*** for safety, and ***adeno***
-associated virus (AAV) as a gene delivery ***vector***. The tumor
vaccine was devised by constructing a chimeric gene which
contained HPV type 16 E7 cytotoxic T-lymphocyte (CTL) epitope DNA (M. C.
Feltkamp, H. L. Smits, M. P. Vierboom, R. P. Minnaar, B. M. de Jongh, J.
W. Drijfhout, J. ter Schegget, C. J. Melief, and W. M. Kast, Eur. J.
Immunol. 23:2242-2249, 1993) fused with the heat shock protein gene as a
tumor ***vaccine*** delivered via AAV. Our results demonstrate that
this ***vaccine*** can eliminate tumor cells in syngeneic animals and
induce CD4- and CD8-dependent CTL activity in vitro. Moreover, studies
with knockout mice with distinct T-cell deficiencies confirm that
CTL-induced tumor protection is CD4 and CD8 dependent. Taken together, the
evidence indicates that this chimeric gene delivered by AAV has potential
as a cervical cancer ***vaccine***.

L39 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 2000:524010 CAPLUS
TI Construction and expression of an attenuated recombinant
adenovirus of human ***papilloma*** -virus type 16 L1-E7
AU Bian, Jifeng; Yu, Xiuping; Qi, Mei; Wang, Yun; Yang, Haining; Hu, Haiyan;
Geng, Zhao; Zhao, Weiming; Zhou, Yabin; Jia, Jihui
CS Laboratory of Molecular Biology and Dept. of Microbiology, Shandong
Medical University, Jinan, 250012, Peop. Rep. China
SO Shandong Yike Daxue Xuebao (2000), 38(2), 113-116, 119

CODEN: SYXUE4 ISSN: 1000-0400
PB Shandong Yike Daxue
DT Journal
LA Chinese
AB An attenuated recombinant ***adenovirus***
vaccine against
HPV16 infection and human cervical cancer was constructed and
developed
The plasmid pUC19L1-E7 contained the major capsid protein L1
ORF and E7
ORF was constructed using polymerase chain reaction. The L1-E7
DNA
fragment was digested with HindIII and SmaI and inserted into
pBluescript,
named pBSL1-E7, and then the L1-E7 DNA fragment was cut with
HindIII and
XbaI and inserted into ***adenovirus*** shuttle plasmid
pCA14, and
co-transfected 293 cells with the ***adenovirus*** pBHG10
plasmid, the
recombinant ***adenovirus*** of HPV16 was harvested. The
expression
level of the chimeric virus-like particle was detected using ELISA,
immunoassay and the electron microscopy. The ***fusion***
L1-E7
protein was expressed at the high level (10% of total cellular
protein.
TCF) and could self-assembled into the chimeric virus-like particle
(cVLP), which was morphol. indistinguishable from the native
virus and
displayed the conformational epitopes. These data indicated that
the
recombinant ***adenovirus*** of human ***papilloma***
virus type
16 L1-E7 was constructed and the L1-E7 ***fusion*** protein
could be
expressed at high level, and could be self-assemble into the
chimeric
virus-like particles in human cells. The recombinant pUC19L1
plasmid was
an ideal ***vector*** for constructing other chimeric
vaccine
carried the epitopes derived from virus and tumor antigen

L39 ANSWER 4 OF 7 EMBASE COPYRIGHT 2001 ELSEVIER
SCI. B.V. DUPLICATE 2
AN 2001265659 EMBASE
TI Construction of a recombinant ***adenovirus***
vector of
human ***papillomavirus*** type 16 L1-E7C
AU Bian J.-F.; Yu X.-P.; Wang Y.; Zhao W.-M.; Zhang L.-H.; Dong
J.-D.; Jia
J.-H.; Zhou Y.-B.; Luan Y.; Qi M.; Chen H.-B.
CS [illegible] Laboratory of Molecular Biology, Department of
Microbiology,
Shandong Medical University, No. 44, Wenhua West Road, Ji'nan
250012,
China. [illegible] public sd cninfo net
SO Chinese Journal of Cancer Research, (2000) 12/1 (21-24).
Refs: 16
ISSN: 1000-9604 CODEN: [illegible]
CY China
DT Journal; Article
FS 004 Microbiology
026 Immunology, Serology and Transplantation
LA English
SL English
AB Objective: Human ***papillomaviruses*** are closely
associated with
human cervical cancer, especially HPV types 16 and 18. At present,
HPV can
not be produced in large quantity and the tumorigenicity and
these
properties of HPV have seriously hampered the development of
HPV
vaccine. HPV type 16 L1 proteins can assembled into
virus-like
particles (VLP), which are morphologically identical to the nature
virion.
In order to develop the recombinant ***adenovirus***
vectors
of HPV, we constructed a recombinant ***adenovirus***
shuttle plasmid
pCA14 L1-E7C. Methods: Human ***papillomavirus*** type
16 L1 open
reading frame without terminator codon (TAA) (5559-7152) and
E7C (682-855)
were amplified using PCR. The L1 and E7C fragments were
inserted into
pGEM-T easy ***vectors*** by T-A strategy, named pTAL1
and pTAE7C.
pTAL1 was cut with Hind III and BglII, the pTAE7C with BamHI
and ClaI. The
L1 DNA fragment, E7C and pBluescript SK were ligated together
using T4
DNA ligase. pBSL1-E7C and pBSL1-E7C was digested with Hind
III and XhoI.
The L1-E7C fragment was inserted into ***adenovirus***
shuttle
plasmids pCA14, named pCA14L1-E7C. DNA sequence results
indicated that
The L1-E7C DNA fragment can encode the HPV16L1-E7
fusion protein
correctly. Results: The L1 and E7C DNA fragments were amplified
by PCR and
recombinant plasmid pTAL1, pTAE7C, pBSL1-E7C and
pCA14L1-E7C were
constructed correctly. The pCA14L1-E7C can be used in the further
research
work, cotransfected the 293 cell with the parent
adenovirus
pBHG10. Conclusion: Our results indicated that we have
constructed a
HPV16L1-E7 ***fusion*** DNA fragments and the
adenovirus
shuttle plasmids pCAL1-E7C for the further research

L2 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 1999:166640 CAPLUS
DN 130:222110
TI ***Fusion*** proteins of human ***papillomavirus*** E6
and E7
stimulate a type 1 T-cell response
IN Bruck, Claudine; Cabezon Silva, Teresa Elisa; Anne-Marie Eva
Fernande;
Gerard, Catherine Marie Ghislaine; Lombardo Bentivoglio, Angela
PA SmithKline Beecham Biologicals S.A., Belg.
SO PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO.
DATE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9910375	A2	19990304	WO 1998-EP5285	19980817
WO 9910375	A3	19990610		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
CU, CZ, DE,
DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP,
KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
MN, MW, MX,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT,
UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD,
RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH,
CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9892639	A1	19990316	AU 1998-92639	19980817
EP 1007551	A2	20000614	EP 1998-945269	19980817

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT,
IE, SI, FI

BR 9812139	A	20000718	BR 1998-12139	19980817
NO 2000000850	A	20000414	NO 2000-850	20000221

PRAI GB 1997-17953 19970822
WO 1998-EP5285 19980817
AB The authors disclose the plasmid construction, expression, and
purifn.
from E. coli of human ***papillomavirus*** early proteins E6
and E7
linked to immunol. active ***fusion*** partners. These
fusion
proteins elicit a Th1 helper cell response in immunized mice.
Using an
E6/E7 HPV transformed epithelial cell line, a ***vaccine***

formulation protected against HPV-induced lesions and tumor development

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 1998:102997 CAPLUS
DN 128:152148
TI Method for activating the immune system against cells associated with
papilloma viruses or their sequences
IN Kleinschmidt, Juergen; Jochmus, Ingrid; Osen, Lutz; Mueller, Martin
PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts,
Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19631357	A1	19980205	DE 1996-19631357	19960802
WO 9805790	A1	19980212	WO 1997-DE1629	19970730

W: JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 917586	A1	19990526	EP 1997-936580	19970730

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19631357 19960802
WO 1997-DE1629 19970730
AB A ***vaccine*** against cells infected with human ***papillomavirus*** (HPV) comprises a ***vector*** contg. a nucleic acid which encodes a ***fusion*** polypeptide, where the ***fusion*** polypeptide consists of a structural ***papillomavirus*** (poly)peptide and a nontransforming (poly)peptide encoded by an early ***papillomavirus*** gene. Thus, the open reading frame (ORF) encoding C-terminally truncated major capsid protein L1 of HPV 16 was amplified by PCR, inserted into ***vector*** pUC19, and ligated to an ORF fragment encoding the 1st 50 amino acids of protein E6 of HPV 16; the deletion from E6 destroys the transforming properties of the transcript. The L1-E6 ***fusion*** gene was excised and inserted into ***adeno*** -assoc. virus ***vector*** pUF2.

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2001 ACS
AN 1993:17456 CAPLUS
DN 118:17456
TI Use of the purA gene as a selectable marker in stabilization and integration of plasmid or bacteriophage cloning ***vectors***
IN Hone, David; Lewis, George K.; Hochberg, Audrey; [illegible]
PA American Cyanamid Co., USA
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 512260	A2	19921111	EP 1992-105887	19920406
EP 512260	A3	19930728		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE

JP 05192161	A2	19930803	JP 1992-134275	19920428
[illegible]	A	19921104	[illegible]	19920430
CA 2067862	AA	19921104	CA 1992-2067862	19920501
AU 9215959	A1	19921105	AU 1992-15959	19920501
AU 654347	B2	19941103		
US 5919663	A	19990706	US 1995-380297	19950130
US 5961983	A	19991005	US 1995-448967	19950524

PRAI US 1991-695706 19910503
US 1994-204903 19940302
US 1995-380297 19950130
AB Host bacteria carrying deletions in the purA gene (for adenylosuccinate synthetase) are used as hosts for cloning ***vectors*** carrying the purA gene as a selectable marker. The ***vector*** is stabilized by selection and the purA gene also acts as a site for integration of the plasmid. The use of these ***vectors*** does not involve the use of antibiotic resistance markers and is therefore particularly suitable for hosts used as live ***vaccines***. A pUC19-based plasmid carrying the Escherichia coli purA gene and the gene for the nontoxic subunit of the E. coli heat-labile enterotoxin was constructed and introduced into Salmonella dublin, S. typhimurium or Salmonella ***vaccine*** strains carrying deletions in the purA gene and transformants selected on minimal medium. This plasmid was maintained in cultures grown on a minimal medium without loss for 80 generations, but lost rapidly in the absence of selection (1% retention in 40 generations). When the purA gene was used in integrating ***vectors*** the prototrophic phenotype was 100% stable for at least 80 generations in the presence or absence of selection.

d his

(FILE 'HOME' ENTERED AT 17:25:07 ON 23 JAN 2001)

FILE 'MEDLINE' ENTERED AT 17:[illegible] ON 23 JAN 2001

L1	4175 S PAPILLOMA? AND VACCINE# AB,BI
L2	9973 S ADENO? [illegible] AB,BI
L3	18 S L2 AND VACCINE# AB,BI
L4	1 S L1 AND L3

FILE 'MEDLINE, EMBASE, BIOSIS, PIRA[illegible], CAPLUS' ENTERED AT 17:28:59 ON 23 JAN 2001

L5	9 S L4
L6	6 DUP REM L5 (3 DUPLICATES REMOVED)
L7	114 S L3
L8	9 S L7 AND PAPILLOMA? AB,BI
L9	6 DUP REM L8 (3 DUPLICATES REMOVED)
	E KLEINSCHMIDT JUERGEN AU
	E KLEINSCHMIDT JUERGEN AU
L10	30 S E3-E4
L11	1 S L10 AND PAPILLOMA? AB,BI
	E JOCHMUS INGRID AU
L12	79 S E2-E4
L13	53 S L12 AND PAPILLOMA? AB,BI
L14	11 S L13 AND VACCINE# AB,BI
L15	7 DUP REM L14 (4 DUPLICATES REMOVED)
L16	6 S L13 AND VECTOR# AB,BI
L17	6 DUP REM L16 (0 DUPLICATES REMOVED)
	E GISSMANN LUTZ AU
L18	626 S E2-E6
L19	547 S L18 AND PAPILLOMA? AB,BI
L20	24 S L19 AND VECTOR# AB,BI
L21	1 S L20 AND PUF? AB,BI
L22	1 S L20 AND ADENO? AB,BI
L23	12 DUP REM L20 (12 DUPLICATES REMOVED)
	E MUELLER MARTIN AU
L24	880 S E3-E12
	E MUELLER MARTIN L AU
L25	14 S E4-E7
L26	894 S L24 OR L25
L27	56 S L26 AND PAPILLOMA? AB,BI
L28	5 S L27 AND VECTOR# AB,BI
L29	5 DUP REM L28 (0 DUPLICATES REMOVED)
	E MULLER MARTIN AB,BI
	E MULLER MARTIN AU
L30	191 S E3-E7
L31	33 S L30 AND PAPILLOMA? AB,BI
L32	2 S L31 AND VECTOR# AB,BI
L33	1 DUP REM L32 (1 DUPLICATE REMOVED)

FILE 'MEDLINE' ENTERED AT 17:54:43 ON 23 JAN 2001

L34	35 S PAPILLOMA? [illegible] AND VACCINE# AB,BI
L35	6 S L34 AND VECTOR# AB,BI

FILE 'MEDLINE' ENTERED AT 17:56:27 ON 23 JAN 2001
L36 52 S L35
L37 41 DUP REM L36 (11 DUPLICATES REMOVED)
L38 [illegible]
L39 7 DUP REM L28 (2 DUPLICATES REMOVED)

---Logging off of STN---

Executing the logoff script...

LOGOFF

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	28.33	216.50

DISCOUNT AMOUNT (FOR QUALIFYING ACCOUNTS)

	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.94	-12.94

STN INTERNATIONAL LOGOFF AT 17:58:41 ON 23 JAN 2001